

SPONTANEOUS RELIGIOUS ATTRIBUTIONS OF
CHRISTIAN TERTIARY STUDENTS

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ABSTRACT

Seventy four Christian tertiary students were presented with six hypothetical life event descriptions and asked to imagine that these events were happening to them. Subjects then listed any thoughts that went through their minds as they faced the events. Spontaneous attributions to God and the Devil were produced by some of the sample. Spontaneous attributions to God's hand, God's will and God's general control were strongly related to the importance of religion and prayer. These attributions appeared to provide meaning and comfort, especially for those confronted with serious health problems. This study supports the view that God attribution is an important part of people's religious belief and meaning system, but casts doubt on the view that God image plays a significant role in determining the situations where God attributions occur.

An attempt was made to test the validity of the forced choice method traditionally used to scale religious attributions. The patterns of spontaneous and forced choice religious attributions were similar across the different situations, yet attribution to religious sources was significantly greater using the forced choice method. It is concluded that the forced choice method tends to elicit reactive measures, and that the richness and spontaneity of the thought listing responses provides a more accurate picture of people's spontaneous religious attributions.

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CHAPTER 1

INTRODUCTION

The belief that specific events in one's life have religious causes plays an important part in the lives of some people. Those who view God as active in one's life may frequently attribute specific and personal events to Him. On recovery from a physical ailment, they may credit God with the healing process, thus linking Him causally to the recovery. This is an attribution to God since God is considered as causing the recovery (an event). They may also attribute events in their lives to other religious causes, such as Jesus, the Devil, angels, religious faith, or even church teachings.

Only in the 1980's have religious attributions been empirically investigated. A few researchers into the psychology of religion have applied concepts and methods of attribution theory to a study of God attributions (Spilka and Schmidt 1983; Spilka, Shaver and Kirkpatrick 1985; Proudfoot and Shaver 1975; Ritzema 1979; Gorsuch and Schmidt 1983; Brown 1984; Pargament and Hahn 1986).

Attribution theory in the 1970's had become the dominant cognitive approach in social psychology (Ross and Fletcher 1985). It is an approach that contains research findings and theoretical models that explain how and why people link causes to events.

The application of attribution theory to the psychological study of religion has attempted to provide an integrative theoretical and methodological framework for the psychology of religion (Spilka, Shaver and Kirkpatrick 1985). Fruitful avenues for future research follow from the religious attribution approach (Spilka, Hood and Gorsuch 1985). Because such an approach is very recent, research has concentrated upon attributions to God amongst Christians.

Progress has been made in the identification of the situations that tend to produce God attributions (Spilka and Schmidt 1983; Pargament and Hahn 1986; Ritzema 1979). Further work has pointed to God attribution as being an important component of religiosity, religious meaning-belief systems, and of coping strategies (Ritzema 1979; Gorsuch and Smith 1983; Brown 1984; Pargament and Hahn 1986).

Despite these major advances, the methodology used in those studies may have been too direct to capture subjects' spontaneous attributions. There is a distinct possibility that the forced choice method traditionally used to elicit causal attributions from subjects does not give a true picture of subjects' spontaneous attributions. The more indirect spontaneous thought listing probe (Weiner 1985) captures subjects attributions that occur spontaneously when thinking about an event and it is used in this thesis to investigate religious attributions amongst a Christian sample.

The examination of the characteristics of spontaneous

attributions to God and to the Devil in response to hypothetical life events are central themes in the present study. The type of events that produce spontaneous religious attributions and the importance of religious belief and meaning system components (God image, prayer and meaning and comfort provided by God) are also themes dealt with in this thesis.

The literature review starts by outlining the history and nature of the psychological study of religion, and the religious attribution approach is placed in broad historical perspective. The literature review then covers research that is specifically relevant to this thesis. Aims and hypotheses are developed from the review and presented in section 2.3

Chapter 3 outlines the sampling, method and coding procedures, while chapter 4 gives a summary of results. The discussion section then follows: it explains the most relevant results and discusses the methodological implications of the findings.

CHAPTER 2

LITERATURE REVIEW

2.1 The Psychology of Religion

2.1.1 Historical trends

Pioneers in the field of psychology of religion published works around the 1890's - early 1900's. These early enthusiasts were Americans who made popular the study of religious conversion, and religion in adolescence. G.S. Hall, Leuba, and Starbuck conducted empirical research in these areas. Possibly the most influential pioneer was William James who embraced empirical methods of investigation (Flakoll 1977) within his primarily phenomenological conceptual framework (Dittes 1977). James' perspective is illustrated in the publication of his most influential book; "The Varieties of Religious Experience" (1902). He popularised and diversified topics of research to include ecstasy, prayer, religion and mental health, and mysticism (Flakoll 1977).

As the topics of study diversified so did the methods used to investigate them. Even so, much of the early material was anecdotal and concerned with self documentation (Beit-Hallahmi 1977). James was interested in the individual's experience and thus used biographical data and self reports in his idiographic approach to studying the psychology of religion. It should be noted that in contrast to the idiographic mode most research is based on the nomothetic approach, which allows the

generalisation of principles governing human behavior and experience (Capps 1977). The history of methods used in the psychological study of religion is reviewed by Flakoll (1977), who notes twenty different techniques including, the self report, introspection, observation, survey, tests and scales. Surprisingly there have been virtually no experiments or quasi-experiments conducted in the field since its beginnings (Batson 1979). This lack of experimentation has almost definitely weakened theory testing in the field of psychology and religion, according to Batson (1979); Yeats and Asher (1979). In fact the period 1900- 1960 has been noted as being dominated by the questionnaire " ... of the comparatively unsophisticated pencil and paper variety" (Flakoll 1977, p.89).

The early 1900's witnessed the beginnings of the psychological and empirical approach to religion, but the period from 1930-50 is generally recognised as a period of decline. The factors that have contributed to the declining number of publications are discussed in a number of reviews (e.g., Beit Hallahmi 1977; Strunk 1977; Scobie 1977). One major problem was that research was not based on an integrative theoretical foundation, and so findings had limited explanatory value. This lack of a suitable paradigm, or approach to investigation may have also retarded development in the field in more recent times according to Beit-Hallahmi (1977). Interestingly, the period of decline referred to is not noted by Strunk (1977), who saw many pioneers as being overly positivistic and reductionist in any case. Strunk sees a hope for the psychology of religion in the integration of many disciplines, where a humanistic perspective that captures the richness of the religious spirit is at the

core.

2.1.2 Towards the Contemporary Empirical Approach

"Has the phoenix risen from the ashes of the early studies in the psychology of religion?"

Scobie (1977).

From 1950 onwards a revitalisation of interest has been sparked by theoretical progress in the study of religiosity, religion and prejudice (see Allport and Ross 1967; King and Hunt 1975). The attribution approach to the psychological study of religion developed by Spilka, Shaver and Kirkpatrick (1985) has also provided a theoretical paradigm that is encouraging much empirical research (see Spilka Hood and Gorsuch 1985). Since 1950 the number of articles and texts published on the psychology of religion has increased at a rapid rate. This has been especially true for the American literature. Francis (1978 and 1981) does not see a rebirth, but instead sees a revival of interest that is not yet founded on sound multidisciplinary knowledge. His point is that researchers in the psychology of religion need a better understanding of both theology and psychology. Capps, Ransohoff and Rambo (1976) reviewed publication trends to 1974. They devised a six dimensional classification schema where coders identified each of 2727 publications as belonging to either the "mythological, ritual, experiential, dispositional, social, or directional" dimensions. Their results clearly indicate that up to 1974, interest in the directional and dispositional dimensions has far outstripped interest in other areas. That is, religion and mental health,

self concepts, religious attitudes, cognitive and moral development have received the most attention. Capps et al conclude that most researchers do not "demonstrate a working familiarity with more than one research area.". Quite possibly the lack of intradisciplinary integration has stifled attempts to construct the broadly based theoretical framework that Strunk (1977) and Francis (1978) call for in their quest for a progressive psychological study of religion.

Warren (1977) notes an important advancement made from 1960-70 in the definition of religion. The treatment of religion as multidimensional provides a more sophisticated approach to the measurement of religiosity (religious commitment) than the traditional unidimensional measures. Frequency of church attendance is an example of a unidimensional measure.

A number of dimension schemas have been devised: (e.g.) Davidson 1985; King and Hunt 1969; Hilty and Morgan 1985; Roof 1979; Cornwall et al 1986. These religiosity dimensions have largely been based upon intuition, observation and factor analysis. Many religiosity scales have been developed from such dimensions which are typically suited to the paper and pencil questionnaire and correlation analysis. Roof (1979) states;

"Morton King and Richard Hunt (1967); (1969); (1972); (1975) have engaged in unquestionably the most comprehensive sustained effort to date to test the multidimensional hypothesis"

They found good evidence for specific religious dimensions, and created a battery of scales to measure a person's religiosity. A very similar set of scales was developed by Hilty and Morgan (1985) giving further support to the multidimensional model as a

measurement frame-work, and as a way to conceive one's religion.

Along with multidimensionality, Gordon Allport's "intrinsic-extrinsic" typology (Allport and Ross 1967) has stimulated substantial research and discussion. Allport was interested in the relationship between prejudiced attitudes and personal religion. He distinguished two types of religious people; the intrinsics and the extrinsics. Later he distinguished a third type; the "indiscriminately pro-religious (neither extrinsically nor intrinsically religious) and a fourth type the "indiscriminately anti-religious (i.e. non religious). According to Allport, extrinsic people use religion to satisfy their own goals, whereas intrinsics "live" their religion. These types then, represent different motivational orientations to religion. Recently Allport's typology has come under critical review. Dittes (1977) criticised the concepts as containing unnecessary value judgements. Secondly, the intrinsic scale tends to be specific to the denomination of the subject (Donohue 1985a). There are also doubts about the clarity of the extrinsic-intrinsic concepts and as Kahoe (1985) notes these concepts are not bipolar, Batson and Ventis (1982); Hunt and King (1977) question whether intrinsic religious motivation is as pure as it seems. These criticisms do not provide insurmountable problems for intrinsic-extrinsic researchers (Donohue 1985b), and Hood (1985) even claims that Allport's typology provides the only consistent theoretical integration in the psychology of religion. Allen and Spilka (1967) employed a similar two fold typology but differentiated people in terms of the way they think about religion (their cognitive style). "Consensual religion" is based upon a closed cognitive style

where concrete and tangible thoughts pervade, while "committed religion" is based on an open style of thinking where abstract and relational concepts tend to be used. It is not certain whether Allen and Spilka's typology measures the same variable Allport's intrinsic-extrinsic model according to Spilka Hood and Gorsuch (1985).

In summary, from 1950 onwards both the multidimensional, and extrinsic-extrinsic approach to the psychology of religion has encouraged and shaped an empirical approach that is rapidly becoming popular. (Spilka, Hood and Gorsuch 1985).

2.2 Attributions to God and the Devil: an Integration of Attribution Theory and the Psychology of Religion

2.2.1 Attribution theory: A brief Introduction

Attribution theory is not a single theory but is rather a collection of theories and research findings that attempt to describe and explain the characteristics of causal attribution. According to Ross and Fletcher (1985) a causal attribution is a cognition where an event is linked to its cause. It is a person's perception or inference of a cause (Kelly and Michela 1980, p.457). For example, a person who states; "John caused the accident", is attributing the accident to John.

Usually researchers are interested in the layperson's attributions, within a social context. Attribution theory became the dominant cognitive approach in social psychology in the 1970's (Ross and Fletcher 1985). Some of the questions attribution theorists have asked are: how, and under what

circumstances do people make attributions?; what motivates people to make attributions?; what factors account for attributional bias? and; what types of attribution are there?

Heider (1958) provided the initial theoretical impetus for further study into the layperson's "naive psychology". He believed that people (like psychologists) attempt to understand the behaviour of themselves and others in their day to day life. Kelley (1967) diversified the focus of research by postulating that people attempt to test the validity of their attributions by analysing "consensus", "consistency", and "distinctiveness" information. Further attribution models have been introduced by a number of theorists including Jones and Davis (1965), Jones and Nisbett (1972) and Weiner et al (1972). Ross and Fletcher (1985) provide a review of the major attribution models.

2.2.2 Methodology for religious attribution research

The methods used for the study of religious attributions have followed the traditional methods taken by many attribution researchers to obtain and analyse subjects' attributions. The method most commonly used to investigate task oriented attributions has been to present the subject with a list of about five possible causes for an event or outcome. The subject is asked to rate the extent each cause is responsible for the event or outcome. Pargament et al (1982); Weiner et al (1972); Feather and Simon (1970) all employ this method. Nearly all the causal attribution to God literature uses this closed scale method to determine when people attribute events to God. Furthermore, attributions to God have rarely been studied in

real life settings. Instead, the scenario methodology has been the tool used to 'create' situations. Several hypothetical situations are presented to the subjects, and characteristics of the situation are manipulated in the vignettes. The situations described have generally been events that may not happen in a person's life, but would carry significant consequences for any person, e.g. an illness, or a change from depression to happiness or a win in a major lottery (see Spilka and Schmidt 1983; Gorsuch and Smith 1983; Spilka, Shaver and Kirkpatrick 1985). The subject is then provided with a list of about five possible causes for the outcome of the event and is asked to rate the extent they think each cause is responsible for the outcome. The scenario methodology relies on the ability of the subject to imagine a hypothetical situation and then to cognitively react as if it were real. The external validity of this method is not yet known but a comparison with attributions in real life (e.g., Bulman and Wortman 1977; Kroll-Smith and Couch 1987) could provide a test.

Causal categories the subjects have been asked to rate for God attribution studies have been; "chance" or "luck"; "fate"; "self"; "powerful others"; "systems"; "God"; "God's will"; "God's anger"; "God's love"; and "the Devil". The method outlined above is one method used in the present study to scale attributions to God and the Devil. The general criticism of the causal scale rating method is that they give rise to reactive measures which do not capture natural or spontaneous attributions (Weiner 1975). Thus, another method that captures subjects spontaneous attributions to God or the Devil is also used in the present investigation.

2.2.3 Spontaneous Attributions

It is ironic that only after much study investigating the causes that people attribute to actions or events the question is asked: Do people naturally and spontaneously engage in a significant amount of attributional activity? (Ross and Fletcher 1985; Kelly and Michela 1980). The importance of much attributional theory hangs on the answer. With the aid of spontaneous attribution methods, researchers have found strong empirical evidence that a great deal of attributional activity occurs in a variety of situations (Wong and Weiner 1981; Lau and Russell 1980; Wortman and Dintzer 1978; Deiner and Dweck 1978) (see Weiner 1985 for a literature review).

Methods used to study spontaneous attributions in task oriented situations have been developed. People's attributions to such causes as luck, task difficulty, ability and effort while attempting a task have been obtained by recording the subjects spontaneous comments (Deiner and Dweck 1978; Brunson and Mathews 1981). Researchers have also examined achievement attributions by studying subjects post-task responses (Gilovich 1983; Wong and Weiner 1981; Weiner et al 1972).

The method used to capture spontaneous attributions in this study is the thought listing probe (see Weiner 1985). Attributions to a causal source are spontaneous in the sense that subjects are not asked or directed to attribute causes to an event. Instead they are asked to imagine themselves in the situation described and to list what goes through their minds as the event happens. In this way any causal attributions that may occur will result naturally from the reaction to an event. It

is hypothesised that spontaneous attributions to God and the Devil will be elicited by subjects (hypothesis 1).

2.2.4 Situation factors that encourage causal attribution

Generally, attributional search occurs following failure, or where negative consequences are perceived (Wong and Weiner 1981). It also tends to occur when outcomes are unexpected and causes appear to be ambiguous (Lau and Russell 1980; Wong and Weiner 1981; Hastie 1984; Bulman and Wortman 1977).

According to the more conventional non-spontaneous approaches to the study of attributions, outcomes that are important and relevant to the subject, and events which carry extreme or severe consequences for individual tend to produce a great amount of causal thinking (Walster 1966; Lowe and Medway 1976). For events that happen to others, the degree of empathy (Hastie 1984), and the perceived likelihood of the event happening to oneself (Gorsuch and Smith 1983) affects the amount of attribution.

Situation characteristics researchers have identified as producing a substantial amount of causal attribution to God in religious samples are: the more important and personally relevant situations (Spilka and Schmidt 1983) and also extreme and improbable situations (Gorsuch and Smith 1983). Attributions to God are greater for the outcome rather than the initial action of an event (Brown 1984). Furthermore, unjust and stressful outcomes tend to produce God attributions (Pargament

and Hahn 1986).

It is well documented that more God attribution occurs for positive-favourable outcomes than for negative- unfavourable outcomes (Spilka and Schmidt 1982; Ritzema 1979). It is expected that this valence trend occurs for the present investigation (hypothesis 2).

Events to do with health appear to elicit stronger attributions to God than events to do with finances, social relations or emotions (Spilka and Schmidt 1983). Thus, God attributions in health (medical) situations are expected to be greater than in emotional or interpersonal situations (hypothesis 4). Ritzema's (1979) results contradicted this pattern, but his results are probably due to the medical situation being not important or realistic enough.

2.2.5 Locus of control, religiosity and God attribution

The external-internal dimensions are an important theme in attribution theory. Weiner et al (1972) and Ross and Fletcher (1985) note that the external-internal dimensions can be construed in terms of personal control. In this sense, people may wonder if a cause is within their control (an internal attribution), or not within their control (an external attribution).

An intriguing possibility arises when attributions to God are considered: Do religious subjects believe God is internal or external? Do religious subjects believe they have some control over God (or at least believe that they have some control over events in their life through their faith in God?). One line of research that provides tentative support for this possibility

has been conducted by Piersma (1974); Sivistri (1979), and Kopplin (1976). They measured religious subjects' locus of control, using Rotter's scale (see Silvestri 1979). Rotter's scale measures the belief that one's life is externally or internally controlled. The results showed that religious subjects scored more highly on the internal dimension than less religious subjects. This finding has yet to be fully explained. It is possible that God is considered more as internal (with regards to control) for those subjects who are close to God, whereas those who are not so close to God may view Him more as external. Closeness to God is a dimension of religiosity (King and Hunt 1975). Therefore, those subjects that are highly religious may believe they have greater control over events in their life because they exert some influence over God. Other explanations for the positive relationship between religiosity and internality have been mooted. For example, Spilka, Hood and Gorsuch (1985) suggest that in the western world, religiosity positively correlates with the belief in free will because subjects believe free will is an important part of Christianity. Pargament's (1982) findings suggest that a better understanding of the locus of control and religiosity relationship may to be found in the patterns of attributions to a variety of causes.

The concepts behind the petitionary prayer are discussed by Thouless (1971); Argyle and Beit Hallahmi (1975), and Brown (1966). A petitionary prayer is a request usually made to God. It is conjectured (in this thesis) that some of the student subjects believe they can have partial control over events by petitioning God. Brown's (1966) study found that younger children were the most likely to believe in the causal efficacy

of personal prayer, however, this belief may still exist for adult subjects.

A one item scale was designed by the writer of this thesis to measure the extent to which subjects believe an outcome is contingent upon their petitionary prayer. This scale is called "Control of God by Prayer". Unfortunately it was not within the scope of this investigation to compare scores on Rotter's internal-external dimensions with either attribution to God scores or with scores on the Control of God by Prayer scale. Ritzema (1979) however, found no correlation between locus of control and the amount of attribution to God for his sample.

Hypothesis 5 is simply that Control of God by Prayer will positively correlate with God attribution because they both represent dimensions of religiosity. Gorsuch and Smith (1983), and Ritzema (1979) point to God attribution as being an important component of religious commitment.

Therefore, it is hypothesised that Ritzema's findings would be confirmed: King and Hunt's (1972) religiosity scales positively correlate with God attribution (hypothesis 5).

Females tend to be more religious than males, in the Christian world at least (Batson and Ventis 1982; Argyle and Beit Hallahmi 1975), and there is also evidence that religiosity tends to decline from the ages of 16 to 30 years (Clarke 1958; Argyle and Beit Hallahmi 1975). God attribution is expected to follow those religiosity trends according to hypotheses 9 and 10.

2.2.6 Sectarianism

"It is clear that over the last fifteen years the centre of gravity of New Zealand Christianity has shifted in the direction of the Pentecostal/fundamentalist tradition"
(Galvin 1982).

Thomson (1982) in a meeting of the Auckland Theology Forum in New Zealand states " ... the charismatic movement has taken hold right across the board to an extent unparalleled anywhere else in the world". Others also see pluralism as a trend for the future of religion in New Zealand (Stuart 1981). Various causes for an increase in the formation and attendance of sects in new Zealand and throughout the world have been suggested. These include the rise of secularism (Stuart 1981); escape from anomie combining with low reading levels (Dean 1968), (Nelson 1972); or the poor and powerless finding compensation in exclusive religion because they are disinherited by society. Most people have their own understanding of the terms "sect", "cult", "fundamentalism" and "religious conservatism", and yet ironically academics can not agree on standard definitions for these terms. Knudsen, Earle and Shriver's (1978) analysis found the common themes behind researcher's definitions of the word "sectarianism" as being; (1) exclusive membership based upon personal religious experience, and (2) a total ideology of life and ethics" (Knudsen et al 1978; p.59). Sectarianism is not purely defined in terms of membership to religious sects or groups, but instead is seen as an approach to life, characteristic of people belonging to sects. If such a definition is true then the psychological study of sectarian religious ideology and world view may provide a useful complement to the sociological perspective. For example, Nelsen

(1972) measured the sectarianism of 227 Southern Apalachians using his sectarianism scale. Nelsen characterises the sectarian person as one who claims exclusive membership, and who holds an image of God as righteous and exacting. A fundamentalist is operationally defined as a person who holds to a puritan morality and a literal interpretation of the Bible.

The scale is a Guttman scale that is probably not unidimensional. As a general rule, Guttman scales should measure only one dimension. This limitation means that Nelsen's scale may not apply to samples outside the southern Appalachians region.

Possibly a definition of fundamentalism as a literal, as opposed to a symbolic-mythological understanding of religion would help to clarify the distinction between fundamentalism, sectarianism, and conservatism (see Hunt 1972). Ethridge and Feagin (1979) and Hood and Morris (1985) believe that the crucial factor is that fundamentalists refuse to accept evolutionary change, or at least the broadening of normative boundaries and so try to maintain their religious beliefs irrespective of outside pressures. However, religious conservatism could be broadly defined using the above principle.

Ethridge and Feagin unwittingly equate conservatism with fundamentalism, while Nelsen equates sectarianism with conservatism, and differentiates fundamentalism from sectarianism. Such lack of conceptual clarity is a problem but does at least attest to the conceptual closeness of the terms sectarianism, conservatism, and fundamentalism.

The relationship between sectarianism and God attribution has not been investigated, but Gorsuch and Smith (1983) found that fundamentalism positively correlated with the amount of

responsibility attributed to God for his subjects. Gorsuch and Smith considered fundamentalism to be represent a dimension of religiosity. Nelsen (1972) indicates that sectarianism is a significant element of one's religious belief and meaning system. For these reasons, Nelsen's sectarianism scale is included in the present design in order to test the hypothesis that sectarianism positively correlates with attribution to God scores. Because the scale may lack external validity, it's reliability and validity are tested for the present New Zealand sample.

2.2.7 Images of God

"God is like my grandfather. He smiles a lot and fixes toys for you when you need him to."

This is an 11 year old's account of what God is like from a study by Heller (1985).. It helps illustrate an important characteristic of thinking about God, that many envisage God as having qualities one would ascribe to people. Interestingly Van Buern's (1981) philosophical exploration leads him to state:

As we speak of human beings "willing", "doing", "intending" and the like so we have spoken of God ... We have been speaking of God as a person not as if he were a person ... the scriptural language requires us to say that the God of whom we are speaking is and must be a person. That is not to say that God and human beings are the same- far from it."

Even if an agreed definition of a "person" is arrived at there are various ways to counter the conclusion reached by Van Buern, which are not relevant to this discussion. However, it can not be denied that personal qualities are either implicitly or explicitly attributed to God in most thinking and writing of God. This point is manifested in the empirical and theoretical

work on God concepts.

Much of the study on God concepts has centred on finding out where a person's God concept comes from. The results to date have done little to clarify the issue. For example, Freud postulated that someone's God image originates from their Father image (Spilka Addison and Rosensohn 1975). Adler suggests the preferred parent image shapes one's God image according to Spilka et al (1975). A social learning theory account of God image dictates that images of your same sex parent are projected on to God. These three theories are called projective theories. The empirical evidence provides rather limited support for all these theories. Spilka, Addison and Rosensohn (1975) conducted a partial test of the three projection theories mentioned (Freud's; Adler's; Social learning), and a self esteem projection theory which maintains that negative or positive perceptions of oneself will determine one's God image. There was only slightly greater support for the social learning and self esteem hypotheses. Those with high self esteem tended to hold loving God images and those with low self esteem tended to hold Old Testament, punishing God images (Benson and Spilka 1973). In Potvin's adolescent sample this held only for older females (Potvin 1977), although perceived parental control and socialisation from both parents and religious groups were important predictors of God image. These results support a further parental projection theory, plus a socialisation theory of God concept formation.

The theories discussed here have a rather limited focus, usually on one's parents and self. As Spilka et al (1975) notes; divided attention to these theories neglects other potent

factors such as culture, history, and theological factors (see Nelsen et al 1973). The empirical findings suggest that an integrated theory of concept formation is needed (Roof 1979).

Research looking at the developmental sequence in the formation of God concepts has also been undertaken (see Mead 1969; Goldman 1964). Piaget's schema of concept formation and stages of thinking have been applied to God images in this research, while at a descriptive level Heller (1985) finds that young children hold strong anthropomorphic images of God; for example, God is seen as the "healer", "friendly ghost" and the "romantic lover." A bearded old man with magical like powers is a stereotypical God image for the young according to Goldman (1964). A third approach to the study of God images is to examine the relationship between images of God and other aspects of individuals religious belief systems. This is the approach taken in the present investigation.

The present investigation examines God image in relation to God attribution. First, the empirical methods researchers have used to obtain a person's God image are reviewed. Second, the specific predictions regarding the relationship between God image and God attribution are presented.

Fairly straight forward approaches have been used to obtain a person's image of God. Typically, subjects are supplied with a variety of adjectives derived from people's own descriptions of God. They are then asked to rate how accurately each adjective describes God (on a Likert scale). Another similar approach asks the subject to place their image of God on

continuums of bipolar adjectives, e.g. from strong=1 to weak=7: If the subject thinks God is extremely strong then she/he will circle position 1. After the subject has rated the adjectives, semantic differential and factor analysis techniques are then used to sort out clusters of adjectives that represent God image factors. Spilka, Amatas and Nussbaum (1964) measured God image factors for a Catholic and general sample. Despite a few sample group differences in God image strong factors for the general group included a loving God, a stern father-punishing God, an omniness (allness factor) and a distant permissive and a benevolent ruler factor. Research has been extended by Gorsuch (1968); Roof and Roof (1984); Broughton (1975) Muthen et al (1977) and evidence for a strong traditional Christian deistic factor (e.g. God is allwise, divine, strong etc), a passive - active, factor and personal-impersonal factors exists. Broughton (1975) finds that people also view God in terms of His immanence and scrutability.

One problem with this research is that it has been largely dependent upon christian samples. A consideration of other religions and agnostic conceptions of God, possibly using construct theory as designed by Fransella and Bannister (1977) should provide a wider framework for understanding God concepts. Other non scriptural views of God appear to have had little place in the studies to date. The advantage of the adjectival approach used is that its simplicity allows other aspects of a person's life and religion to be compared with their "God image". So, for example, one's mental health and self esteem (see Spilka Hood and Gorsuch 1985), one's culture or attribution tendency (Brown 1984) have been related to God image. In this

sense God image may be thought of as one aspect of an integrated belief system.

Only Brown's (1984) study has examined the relationship between God image and God attribution. Brown's results point to subtle links between God attribution and God image factors which need further explanation. Those subjects in Brown's sample who held a "Kindly Father" image tended to attribute outcomes to God's intervention more so than those who did not hold such an image. Those who viewed God as omnipotent and omniscient tended not to attribute human actions to God's will, but those who stressed a punishing image of God did. These two findings point to a complex relationship between God image and God attribution.

This thesis does not attempt to explore the complexities of Brown's results any further. Instead it is postulated that those who see God as very loving will be tend to causally attribute positive (happy) outcomes to God more so than those who don't view God as so loving (hypothesis 6). The rationale for this prediction is that, people who emphasise a loving God image believe God demonstrates His love in this way. Also, it is predicted that those who emphasise God as punishing will tend to invoke God for negative (unhappy) outcomes, for they believe God expresses His anger in this way (hypothesis 7). Pargament and Hahn (1986) give some support to this image of God account of God attribution. Such an account may also explain why God tends to be invoked for positive outcomes rather than negative outcomes, for most people tend to stress the loving qualities of God (Pargament and Hahn 1986).

A consequence of the image of God account is that those

people who conceive God as being personal and active will tend to attribute outcomes to God, more so than those who don't stress the personal-active God image. Hypothesis 8 predicts that subjects will respond in this way.

2.2.8 Motivation for attributions

Spilka, Shaver and Kirkpatrick (1985) see the motivational basis of attribution as a foundation for a study of the psychology of religion. They argue that the motivation to look for causes is the same for both natural and supernatural attributions and that religious attributions arise in response to the desire to find meaning, the desire for control, and the desire to maintain or enhance self esteem. Indeed these motivations may help explain the functions of religion itself (see Yinger 1969; Nelsen et al 1976).

What makes people search for causes and why do people engage in attributional activity? Questions such as these are at the heart of a motivational and functional understanding of causal attribution. Ultimately motivations appear to serve a survival and self protective function; for instance, Walster (1966) devised the defensive-protective hypothesis, that people attribute negative events to sources that protect themselves from future blame. Chaiken and Darley (1973); Shaver (1970); Shaw and Skolnick (1971) and Lowe and Medway (1976) provide some support for Walsters hypothesis. Attributional egotism; " ... the tendency to take credit for good outcomes and deny blame for bad ones" (Snyder et al 1978) is self serving. Attributions may

also function to enhance or maintain levels of self esteem (Fitch 1970) or to present a favourable self image to others (Kelly and Michela 1980, p.475).

A different motivational theme is the desire to find meaning about events in the world. Complementary to Heider's (1958) view of people as naive psychologists is the human desire to explore, extract information and gain knowledge of our world (Frankl 1963).

A search for meaning in life and in specific events is extremely relevant to the psychology of religion. The cognitive approach to religion as a meaning - belief system and the relevance of religious meaning to one's life provides an heuristic avenue for future research (Roof 1979; Glock and Piazza 1978; Brinkerhoff and Jacob 1987; Kroll-Smith and Couch 1987; Preston 1987; Gruner 1984; Nelsen 1972; Peterson and Roy 1985; Van Der Lans 1985; Schweiker 1969; Pargament and Hahn 1986). Work conducted on people's ultimate concerns and religious beliefs is also relevant to the meaning system perspective (e.g., Yinger 1969; Nelson et al 1976). Many of these researchers stress religion's role as providing meaning in life, and in events. For example, Bulman and Wortman (1977) noted that several of their subjects believed God had a reason for allowing their spinal injuries to occur.

A motivational theme related to the desire for meaning is the desire to obtain a consistent and structured life. Lerner's "Just World" hypothesis dictates that people attempt to provide an orderly world by believing the world functions on a principle of justice (Lerner 1975; Karnoil 1980). Pargament and Hahn (1986) examined God's perceived role in the provision of a just

and moral world. They found, that for most of their subjects, a just world (dependent upon God as a moral guide) was not a major determinant of God attributions. Research in other situations, and using select samples has produced different results (Karnoil 1980).

Extending from the desire to obtain a consistent world by attributing events to causes is the desire to predict and control events. The desire to be free is another motivation concerning personal control (Fishoff 1976; Wortman 1975; Langer 1975; Wortman and Dintzer 1978; Worchel and Andreoli 1976; Harvey 1976).

Attributions seem to function as a coping strategy. Bulman and Wortman (1977) found that self blame for a severe accident was adaptive. Further research on the importance of attribution to effective coping and adjustment has been conducted by Nunn, Kosa and Alpert (1968); Metalsky et al (1982); Pargament and Hahn (1986); Taylor et al (1984). Comfort and security provided by God in times of crisis may aid coping. Peterson and Roy (1985) developed a scale that measured the comfort provided by God and religion. It is postulated that those subjects who are dependent upon God for comfort will be more likely to attribute outcomes to God (hypothesis 5).

2.3 Aims and Hypotheses

The ten specific hypotheses are presented with the first three aims of research in mind, that is, to examine patterns of attributions to the religious supernatural across different situations, to compare people's religious attribution with other aspects of their religious belief system, and to compare forced choice rating attributions to the supernatural with spontaneous attributions to the supernatural. In addition to the hypotheses, the spontaneous religious content produced by the thought listing task is explored. The nature and importance of religious thoughts for individuals who experience life crisis are examined.

Most of the hypotheses follow from the review of God attribution literature but the major difference in approach here is that hypotheses are tested by two methods. The first method is the thought listing method which probes for spontaneous attributions. No other studies have empirically investigated spontaneous attributions to religious sources. The second method is the traditional forced choice rating method which scales non-spontaneous attributions.

The hypotheses are:

1. Spontaneous causal attributions to God or the Devil are made by the subjects.
 2. God's causal influence is seen as greater for favourable outcomes than for unfavourable outcomes.
 3. Causal attributions to the Devil occur for unfavourable outcomes but not for favourable outcomes.
 4. Causal God attributions are stronger in Medical situations than in either Emotional or Interpersonal situations.
 5. Causal God attributions positively correlate with each religious scale. The scales measure: sectarianism; religiosity; control of God by prayer; religious comfort and; the perception of God's personal influence (refer to section 3.2.2 for a description of the scales).
Furthermore, scales that measure the perception of how often God influences events in one's life (Q.1), and the belief that God directly intervenes in one's life (Q.2) correlate the most highly with God attribution tendency.
 6. The conception of God as loving positively correlates with attribution to God for favourable outcomes.
 7. The conception of God as punishing, positively correlates with attribution to God for unfavourable-negative outcomes.
 8. The conception of God as personal and active positively correlates with total attribution to God.
 9. Younger subjects produce stronger attributions to God than older subjects.
 10. Female subjects produce stronger attributions to God than male subjects.
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CHAPTER 3

METHOD

3.1 Sample

Seventy four subjects in this study were all tertiary students. Sixty four attended the University of Canterbury while 18 attended Nelson Polytechnic. The majority of subjects were contacted through Canterbury University's Christian Union. The Union contains over 200 students belonging to a variety of Church denominations.

The aim of sample selection was to optimise sample heterogeneity (within practical constraints) so that the hypotheses could be adequately tested, and valid and meaningful conclusions could be drawn. Therefore the following criteria guided sample selection:

- a) the subjects consider themselves Christians, or in some cases agnostics;
- b) there is a cross section of Christian tertiary students with regards to age, sex, denomination and religious commitment;
- c) the sample contains subjects that can imagine themselves as part of the scenarios and can coherently write down their thoughts in response.

Christian subjects were sought for several reasons. Firstly, empirical research on causal attribution to Divinity has traditionally used Christian samples and direct comparisons

with this research is possible when Christian subjects are sampled. Secondly, the religious scales available, are most suited to Christian subjects. With the target population being predominantly Christian a detailed analysis of attribution to God should be possible.

An examine religious source attribution for a variety of different religions (e.g. Muslim, Judaism, Hindu, etc) or for the general population is beyond the scope of this investigation. Emphasis in this study is placed on the psychological and situational characteristics of religious attribution rather than the demographic and sociological factors.

Sample description

Thirty nine subjects were female, thirty five were male. They were aged between 18 and 30 years. Table 1. below, displays age, sex and religious denominations. Because of the large number of denominations (and the small cell sizes resulting) it is not possible to examine the relationship between denomination and religious attribution. However subjects were grouped on the sectarianism scale and sectorianism was compared with religious attribution.

Table 1. Sex, Age and Denominations of Subjects

<u>SEX</u>	Frequency	<u>AGE</u>	Frequency	<u>DENOMINATION</u>	Frequency
FEMALES	39	18	13	Anglican	21
MALES	35	19	15	Assembly of God	1
		20	14	Baptist	12
		21	10	Brethren	1
		22	11	Catholic	12
		23	4	"Christian"	1
		24	1	Elim	1
		25	3	Methodist	3
		26	1	None	7
		27	0	Presbyterian	1
		28	0	Reformed Church	1
		29	2		

3.2 Questionnaire Constuction

The written questionnaire was designed by the author in three parts. Part 1 was designed to capture spontaneous attributions to the religious supernatural. Part 2 measured attributions to God and the Devil on forced choice Likert scales. Part 3 was developed to see how aspects of religiosity and beliefs about God relate to religious attribution.

3.2.1 Scenario Design

Six different scenarios (event - outcome descriptions) were developed by the writer for Part 1 and Part 2. Each of the six scenarios consisted of a hypothetical situation or set of events involving the subject. The events were personal life events. In order for the subject to place themselves in the situation described, events that the subjects could identify with or that were particularly relevant to the student were chosen. Certain other event characteristics were included in the scenarios because they tend to produce causal thinking. For example, all the scenarios had unexpected outcomes.

The outcome valence and situation domain were the factors containing the independent variables. The dependent measures were the resulting attribution scores. The design is illustrated in Table 2 below.

Table 2. Valence and Domain Factors of Scenario Design

SITUATION DOMAIN:	Medical		Emotional		Interpersonal	
OUTCOME VALENCE:	Positive	Negative	Positive	Negative	Positive	Negative

The scenarios are presented in Appendix A1 and also in Appendix A2. The medical-negative scenario describes an accident

causing paraplegia whereas the medical-positive scenario describes the recovery from a threatening cancer. The emotional-positive scenario gives an account of the recovery of self esteem through the acquisition of a job, while the emotional-negative depicts severe depression. The marriage breakdown of one's parents is described in the interpersonal-negative condition whereas the commitment by one's partner towards marriage depicts the interpersonal-positive scenario.

The six different scenarios were combined into three domains. The first situation domain contained medical events, the second contained emotional events, and the third contained interpersonal events. Within each of these domains one scenario had a positive-favourable outcome the other had a negative-unfavourable outcome. Therefore, three of the scenarios had positive-favourable outcomes while the other three had a negative-unfavourable outcomes.

There are certain event-outcome characteristics that encourage causal thinking. The scenarios were shaped so that the initial event and subsequent outcome could be differentiated by the subjects. This clarification helped to determine exactly what was being attributed. Brown (1984) noted more God attributions for outcomes than for initial events. This was a second reason for differentiating the events from the outcome. Care was taken to select situations where subjects were likely some experience or knowledge of; For example, it was not likely

that many of the tertiary students had experienced stomach cancer, but it was likely that they knew of people who had. Subjects are likely to have seen television dramas, documentaries or read about terminal cancer cases. This knowledge should help them to picture themselves in the situation described by the scenario.

3.2.2 Religious scales Part 3

The third part involved selecting predesigned religious scales and creating items that uncover some cognitive - belief factors important in religious source attribution. Religious attribution was not examined as a phenomenon on its own, but was treated as a component of a person's meaning and belief system. Ritzema (1979) and Spilka Hood and Gorsuch (1985) take a similar perspective in their approach to the study of religious attributions. This section provides a partial replication of Ritzema's (1979), Brown's 1984, and Gorsuch and Smith's (1983) design.

Several empirical scales were surveyed and some of the scales that appeared relevant to God attribution were included in Part 3. The principles that guided scale selection were firstly, that scales should be reasonably short so that the subject does not have to spend too long completing the 3 part questionnaire and secondly, that scales should be most relevant to a person's cognitions, beliefs and religious source attribution.

Some scales that were initially accepted for inclusion were excluded because they did not appear to have any meaningful

relationship with religious attribution; one example is King and Hunt's (1975) Purpose in Life scale. Exactly how life purpose would affect religious attribution patterns is unclear, therefore that scale was not included.

The scales selected for administration were:

1. Sectarianism/fundamentalism/conservatism (Nelson 1972);
2. Devotionalism (King and Hunt 1972);
3. Salience: Cognition (Hunt and King 1972);
4. Religious comfort and dependence (Peterson and Roy 1985);

5. God Image (Broughton 1975; Potvin 1977; Gorsuch 1968);

In addition to these scales, items were developed by the writer to measure;

6. How God's influence is perceived/conceived;
7. Control of God by Prayer.

1. The Sectarianism scale measures a person's degree of sectarianism.

2. The Devotionalism scale measures an aspect of religiosity that involves one's closeness to God and personal prayer life.

3. Cognitive Salience also measures an aspect of religiosity but is primarily concerned with the importance of religion and God in a person's life

4. The Religious Comfort Belief scale taps a person's

dependence upon God for comfort in the sense that God's plan is perceived as secure and benign.

5. The scale measuring God images uses adjectival rating to scale a persons image of God along four God image factors. Adjectives that loaded highly on any of the factors from previous studies were chosen. They were ordered randomly so that the subject would respond to each adjective per se, rather than to a cluster of similar adjectives. The factor srepresented by the adjectives are: a loving God; a punishing God; an omni God (e.g.) omniscient, omnipresent (etc.); an active and personal God. Subjects' God images were weighted during coding according to these four factors. It was expected that a subjects God attribution style would be dependent upon that person's conception of God's nature..
6. The four items focussing on God's influence look at the perception of how God influences events in one's life (Appendix A3 p.134).
7. The item used to scale "one's control of God" was designed to measure the extent to which the subjects' believe their own petitionary prayer to God (or Jesus) will effect a desired outcome. It is: " Through prayer, if you sincerely ask God to help you how often will God help you?"

3.4 Procedure

Spontaneous method - Part 1

The subjects were presented with a written scenario and asked to imagine that the scenario is real and that the situation described is happening to them. They were then requested to; "List what goes through your mind with regard to the EVENTS and OUTCOME ..." (see Appendix A1). They completed this thought listing task for all six scenarios. The thought listing probe is a simple technique that has few demand characteristics. For this reason no other questions were included in Part 1. The subject's own reaction to the scenario was primary. A second advantage of the thought listing probe used is that it captures feelings as well as cognitions.

Forced choice method - Part 2

The same six scenarios were presented to subjects in Part 2 and the subjects were again asked to imagine that the scenario is real and that the situation described is happening to them. A method of causal rating followed by most attribution researchers was then used. Six possible causes were provided for the subject. They were asked to rate the extent each cause is responsible for the OUTCOME of the scenario, from

1.= Not at all to 7.= Very great extent on the 7 point Likert scale (see Appendix A2). The causal categories provided were: "You (the central character)"; "luck"; "fate"; "God"; "other people (whether in Scenario or not)"; "Devil".

Attributions to multiple causes and causal weighting is captured by this method. The method used of weighting multiple causes is a more sophisticated method than one which only captures attributions to a single cause.

Order of presentation

a) The six scenarios presented to each subject were randomly ordered for Part 1- the Spontaneous Method to counter any order effect for scenario presentation.

b) The questionnaire was made up of three separately stapled sections; Part 1; Part 2; Part 3. The order in which these sections were completed was important for the aims of research: If subjects completed Part 3 (the religious sales) before completing Part 1, it is likely that religion would be in the front of their minds. Religion would be more cognitively salient at that stage and so religious thinking would be more prominent when completing the spontaneous task. Similarly, if Part 2 (the causal ratings) were completed first, subjects may be more inclined to elicit attributions when completing the spontaneous part. Furthermore, the subject would find it easier to guess the experimenter's aim (to study spontaneous God or Devil attributions). Bias may then occur for the spontaneous task because God attributions could be elicited to satisfy experimenter expectations.

Presentation and Collection

The data was collected in November (1986). It was not possible to get a large group of Christian students together at this time to fill out the questionnaire as exams were very near, so the majority of scripts were personally delivered to the subjects residence and collected a day or two later. Clear verbal instructions were given to complete the sections in order and not to look at the subsequent sections until the prior ones were completed. This point was emphasised when speaking to subjects. Subjects were shown the title page of Part 1 of the questionnaire (Appendix A1) and told that Part 2 and 3 were follow-ups to Part 1.

3.5 Limitations of Method

1. One major limitation of the scenario methodology is the artificiality of using a subject's imagination to 'create' situations. The scenarios are not real and the subject is not actually involved in the situations. As a consequence several factors are not included in the scenarios - for example, peer pressure, interpersonal communication, and temporal factors as well as the perceptual- phenomenological factors associated with the reality of experience. More research is needed to determine whether people react cognitively to a hypothetical scenario the same way they react to the real happening. Possibly subjects react to the personal involvement scenario as if they were reading about other people's life events, rather than actually experiencing the events themselves. Jones and Nisbett (1972) and Spilka and Schmidt (1983) provide a basis to test this possibility.

2. Event characteristics of hypothetical scenarios are often manipulated in by attribution researchers, yet it is unclear what event characteristics actually make up a situation. A study of how the people perceive the difference between various situations should clarify the role of event characteristics. However, at this stage, a major problem associated with the elusive nature of situations is that it is difficult to experimentally control for the event characteristics of a scenario.

3. In the present design six different event - outcome scenarios were created. Two different event-outcome scenarios represented each domain. One had an unfavourable (negative)

outcome, the other had a favourable (positive) outcome. Thus as outcome valence changed so did the complete scenario.

Gorsuch and Smith (1983) merely altered the outcome of the scenario in order to change the valence. For a repeated measures design Gorsuch and Smiths' procedure is somewhat artificial because the subjects must imagine two outcomes for the same initial event. Furthermore, a much larger number of situation outcomes is needed to represent situation domains. It should be noted however, that for my design it is the valence of the situation domain factor rather than the valence of the scenario per se that is being examined with respect to attribution.

4. The questionnaires were administered to the subjects individually and the subjects were relied upon to complete the questionnaire in the proper order, without supervision. A better method is to administer the Parts 1, 2 and 3 successively to each subject (in one venue). Although this may lead to subjects hurrying their responses, at least the proper order of questionnaire completion is ensured. Unfortunately it was not possible to assemble a large group of Christian students together when administering the questionnaire.

3.6 Coding Procedure

There were two types of coding procedures used. The spontaneous expression (Part 1) was analysed for content and style by three coders before storing on computer files whereas the numerical likert scale responses were simply collated and organised on computer files.

Spontaneous Thinking

The author and two other coders comparable in age and background to the subjects, separately coded all of the thought listing responses. The other coders were given explicit coding instructions. They also had practice and coaching from the author using some preselected scenario responses from different subjects. While the practice was most important in clarifying a systematic approach to coding, the coaching allowed room for the coders own interpretation. It was important that all three of the coders' interpretations should be represented. Considering the number and type of coding categories, the initial interjudge agreement was 86 percent. Any discrepancies were reviewed and quickly resolved during a group discussion. A final copy was produced based upon the groups decisions.

The open ended expressive responses given for Part 1 were coded according to attributional content and non causal religious content. This was done in two stages.

The first stage was to code for causal thinking, including aspects of cognitive-linguistic style of causal thinking. For example, the subject's spontaneous causal attributions to God were coded as either implied or stated. The amount of causal search and causal complexity was also coded (see Appendix B1 for an example the first coded form for subject 44). The second stage involved coding the spontaneous material on religious content that was not strictly causal in nature. In addition, causal attributions to God were recoded as either confident and tentative (Appendix B2).

3.6.1 Causal content

Firstly a coding system was developed that coded causal content and style. A major aim was to compare causal attribution using the thought listing task with forced choice causal attribution, therefore spontaneous causal attributions were coded under the headings of attributions to "self"; "others" ; "fate"; "luck"; "God"; and "The Devil". These were also the forced choice causal categories: each attribution was either coded as implied or stated directly. The coding was done separately for each scenario. The six scenarios were denoted on the coding sheets as "accident" (the medical-negative situation); "cancer" (the medical-positive outcome scenario); "results" (the emotional -negative outcome scenario); "job" (the emotional negative outcome scenario); "fiance" (the interpersonal positive outcome scenario); and

"parents" (the interpersonal negative outcome scenario). Appendix A1 shows the scenarios referred to in the coding form Appendix B (1).

Each coder had to decide whether the subject was attributing the initial events (coded "E"), the outcome (coded "O") or both of these (coded "E/O") to a causal source. Every attribution was coded by writing the line number from which the attribution came. This enabled a quick referencing of attributions so that any coding disagreements were quickly settled. Further analysis of the coded data was fast and efficient with such a reference system.

Importantly, it was the tally of the line numbers separated by commas (not the line number itself) that represented the number of spontaneous attributions. The tally represented the frequency or strength of the attributions in each scenario and was calculated and entered into computer files after all the category coding was completed. Tallying the number of attributional statements, thoughts or speculations seemed a more logical way of scaling the amount or strength of attributional content than just tallying the number of sentences or lines devoted to attribution as some other studies have done.

Bettman and Weitz (1983) used a combination of methods to scale the amount of attribution. A difficult problem in coding arose when two or more attributional statements in a subject's response to a scenario were very similar: should they be

regarded purely as redundant repetitions or should they be coded as two separate attributions ? Firstly, the position taken by all coders was that no statements or thoughts were redundant and that a repetition at least had significance in that it emphasised the salience or importance of the cause for the subject. Secondly, in most cases similar statements appeared to differ in subtle and meaningful ways. Subtle differences were revealed by the fact that similar (not word for word) attributions occurred in reaction to different parts of the outcome. In support Grigg (1986), Ross and Fletcher (1985) and Bourque and Back (1971) note that linguistic differences are more than just grammatical whims but are also valid indicators of underlying cognitive differences. There were, in any case, relatively few subjects who repeated themselves to any extent.

In addition to coding causal attributions to the specified causal categories of "self", "luck", "God" etc., the coders recorded the number of thoughts concerned with causal search in the "Questions concerning cause" category. Statements (or a collection of statements) that showed evidence of complex causal thinking were referenced under the heading "Complex causal thinking". It would have been possible to measure causal complexity by counting the number of causes a person attributes the outcome to ("differentiation" complexity - Fletcher et al 1986, p. 002). The causal complexity category in this study was instead concerned with the tendency of the

subject to explain events by temporally and spatially linking chains of causes, and with the subject's invocation of principles and abstract concepts regarding causality. A person's metacognition relating to explanations was of importance. This type of causal complexity is concerned with the "integration phase" of cognition (Fletcher et al 1986).

Because of the conceptual and methodological problems associated with numerically scaling the amount of causal complexity, the analysis and conclusions given in later chapters centre on the obvious trends of causally complex thinking rather than on a detailed statistical examination of causal complexity. Here is an example of one subject's complex causal thinking:

"It was God who instilled confidence in me to overcome my low self esteem and this positive attitude then helped me get a job"

A chain of causes is linked in order to explain the outcome.

One example of a subject's implied causal attribution to self was:

"I should have worked harder. What a better chance if only I had worked."

This was coded as an implied attribution to self because it can only be inferred that the subject attributes the outcome to herself. The essence of an "implied attribution" is that the subject's attributional - linguistic style is not as direct as a "stated attribution". Two examples of stated attributions to "self" were;

"It was my fault I guess" and "Look what I've done now."

Questions such as "Why me?" and "Was it the doctor's doing?" were coded as "causal search questions", as they express a search for the cause or the reason behind the outcome. Appendix B (1) gives the form that was used to code causal content for subject 44. Further examples of the types of attributions and causal thinking that were coded can be obtained in this thesis by referencing the appropriate scenario in Appendix A1 using coding form B (1).

3.6.2 Religious thinking and non-causal God attributions

The second stage of category design was completed after causal content was coded. Certain religiously based themes appeared to stand out when the author was reading spontaneous responses to the life crises (in the first stage of coding). Therefore over 100 spontaneous thoughts containing religious content were identified and rewritten. They included: attributions to God; statements about God and Jesus, the afterlife, personal faith and prayer etc. By reading through the list of religiously based thoughts these themes became much more obvious, and thus formed the basis of the religious thinking categories. The religious theme categories developed were:

Asking God (or Jesus) for help e.g.: "I pray for a way through this time";

Thanking God e.g. "God be praised I am alive!";

Faith and relationship e.g. "I should not have doubted you
Lord, I feel closer to you now";

God's Reasons, e.g. "Maybe God wants me to learn from the
experience".

It was also evident that different types of attribution to God occurred that were not purely causal God attributions. There were several statements referring to God's plan;

"This must have been God's plan" or "God must have wanted this to happen".

These statements attribute the outcome to God's plan and God's will respectively. There were also statements of the type;

"God is always in control" or "God is in control, I know"

These two statements appeared to reflect a general faith in God as a benign and immanent controller, regardless of earthly circumstances. Such affirmations were viewed as being conceptually related to causal God attributions but differed in that they were general or global attributions to God's control: The statements do not explicitly refer to specific cause and effect relationships, or to specific instances in time. Attribution to "God's control" appears to parallel the religious locus of control attribution disposition studied by Glock and Piazza (1978) and Piersma (1974). At that stage of coding it was not known whether subjects differentiated between attributions to God's will and God's plan, but it was assumed that an attribution to the will of God did not necessarily imply that subjects saw this as part of God's plan. Another point

that was considered was that it is arguable whether the categories "Attribution to God's will" or "God's plan or purpose" are strictly attributions. However, attributions to God's will, plan and purpose could easily come under the heading of intention and meaning attributions (see Heider 1958; Jones and Davis 1965)

This thesis is mainly concerned with attribution to God, and in particular spontaneous attribution to God. For this reason the spontaneous causal attributions to God (called "attributions to God's hand" on the coding sheets) were re-examined to identify the number of tentative and confident spontaneous causal attributions to God. An example of a tentative causal attribution to God was: "Maybe God was involved with my recovery.", while an example of a stated causal attribution to God was: "God has worked things out again.".

3.6.3 Likert Scale Responses

In contrast to the spontaneous response coding, the closed scale coding for Part 2 and Part 3 was a relatively simple task. The data was simply arranged according to the pre-designed scales. The one exception was the coding of Nelsen's (1972) sectarianism scale for Part 3. Nelsen used a sample of Southern Appalachian Presbyterians to test the validity of his sectarianism scale. The scale may not have been valid for the

New Zealand sample therefore a Guttman analysis was performed on the scale items to test validity.

In order for the scale to pass the validity criteria (a coefficient of scalability > 0.6 , and a coefficient of reproducibility of > 0.9), one of Nelsen's original items had to be excluded. Also the midpoints had to be optimally positioned in order to meet the scale criteria (Guttman scaling procedure is discussed by Ford 1950). Nevertheless, the modified sectarianism scale proved a valid measure for the New Zealand sample.

3.7 Statistical Analysis

The statistics commonly used in religious attribution designs have been analysis of variance and simple correlation statistics (Ritzema 1979; Gorsuch and Smith 1983; Spilka and Schmidt 1983).

Statistics were used here to examine differences and correlations between the independent and dependent variables. They included multi-variate and uni-variate analysis of variance, discriminant analysis, simple and multiple correlation, nominal association statistics (uncertainty coefficient & lambda), and Guttman analysis. The computing package Spss-x was used to compute statistics. In addition to the above techniques, the frequency and scattergram sub-programs were used to graphically display the distributions of attribution scores as well as correlation patterns. These graphs helped to identify any peculiarities in the distribution of data.

Manova

Manova (multi-variate analysis of variance) was performed for the results of each of the two attribution methodologies. Manova takes into account the intercorrelations between a set of variables, and was appropriate here because of significant correlations between the variables containing attribution scores. One "set" of variables is represented by the situation valence factor containing the two variables of favourable and unfavourable outcome. The other "set" is represented by the situation domain factor containing three variables of medical,

emotional, and interpersonal domains. Therefore to test for the effect of domain and valence upon religious attribution scores a 2x3 repeated measures Manova was conducted for each attribution methodology. Univariate contrasts were then used to determine what specific situation differences were evident. The effects of sex, age and sectarianism upon religious attribution were also tested using the manova subprogram.

Guttman Analysis

The SPSS Guttman procedure helped to build and test the validity of the sectarianism scale. The items were designed by Nelsen (1972).

Correlations

SIMPLE and PARTIAL correlation coefficients were used to examine intercorrelations amongst independent variables and to note correlation patterns of interest. They were also used to identify correlations between religious scale scores and God attribution scores.

MULTIPLE correlations gave the unique variance contribution of each religious scale to God attribution scores. They determined which of the religious scales best predicted God attribution tendency.

NOMINAL association statistics (lambda and the uncertainty coefficient) were used to help compare spontaneous God attributions with forced choice God attribution.

CHAPTER 4

RESULTS

The results follow the outline given by the aims of research. Results are grouped into four sections. Section 4.1 gives the results for the hypotheses. The hypotheses are tested using both the forced choice and spontaneous response methods. Sections 4.2 to 4.4 contain further results that provide insights into causal religious attribution, causal search and complexity. Section 4.5 summarises the findings in response to an exploration of non causal religious attributions, and religious cognitions of subjects in crisis situations. Lastly, a statistical comparison of forced choice and spontaneous attribution is summarised in section 4.6.

Figure 1a. SPONTANEOUS ATTRIBUTIONS TO GOD'S HAND
(by scenario)

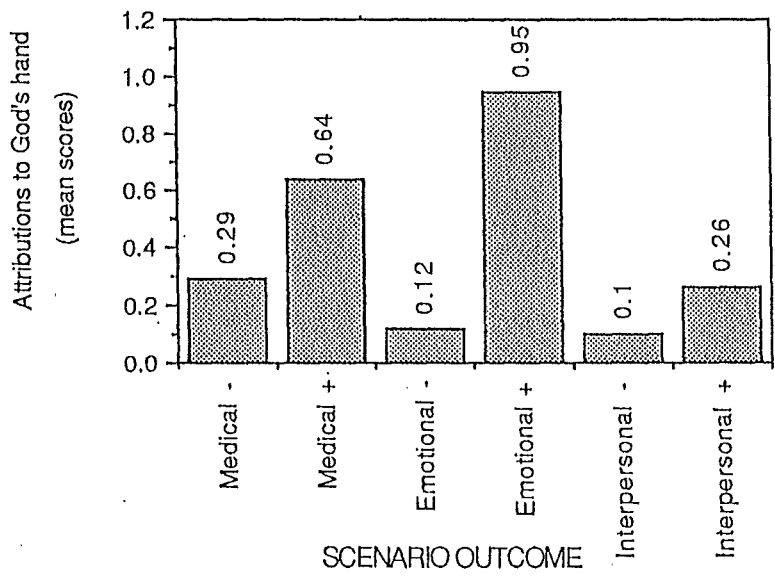


Figure 1b. SPONTANEOUS ATTRIBUTION TO GOD'S HAND
(by Valence)

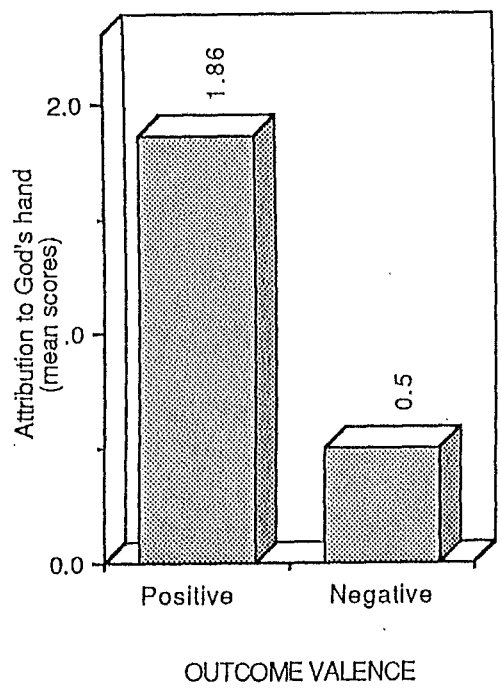


Figure 1c. SPONTANEOUS ATTRIBUTIONS TO GOD'S HAND
(by Domain)

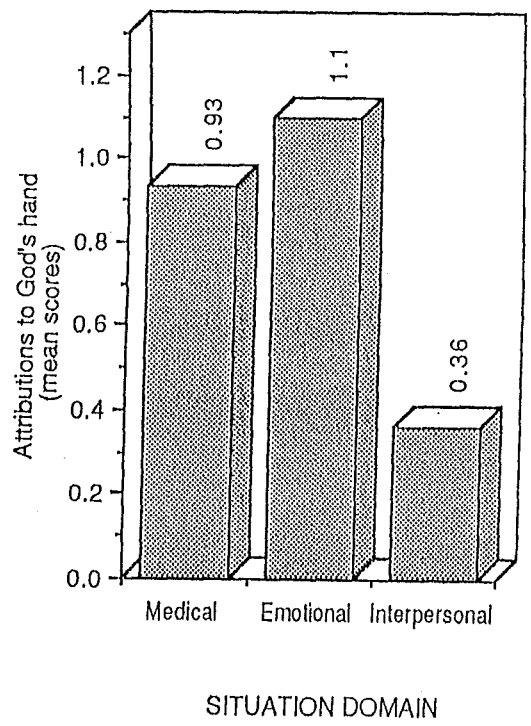


Figure 2a. FORCED CHOICE GOD ATTRIBUTION
(by Scenario)

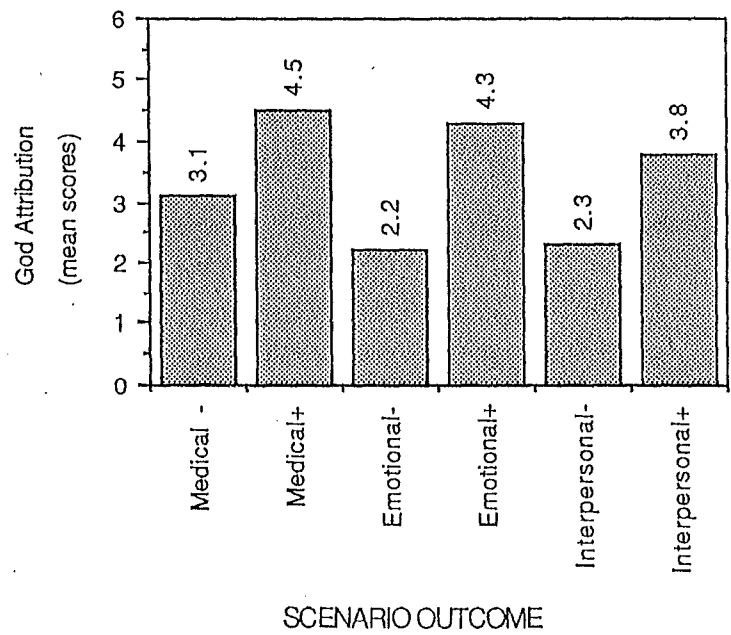


Figure 2b. FORCED CHOICE GOD ATTRIBUTION
(by Valence)

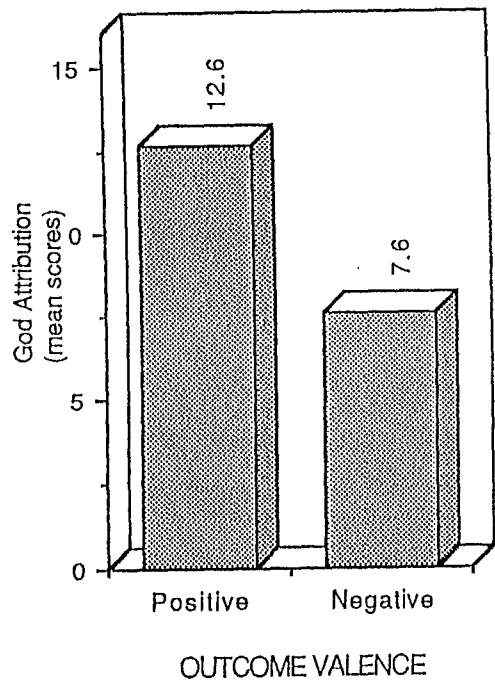


Figure 2c. FORCED CHOICE GOD ATTRIBUTION
(by Domain)

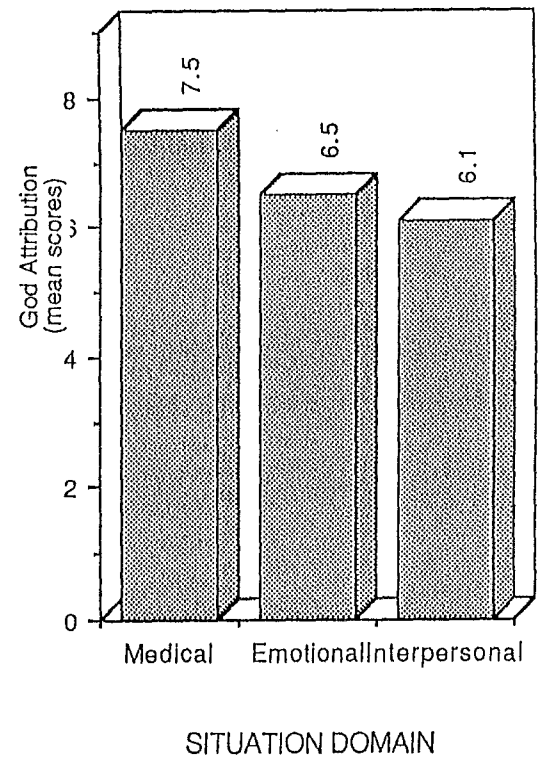


Figure 3b. FORCED CHOICE DEVIL ATTRIBUTION
(by Valence)

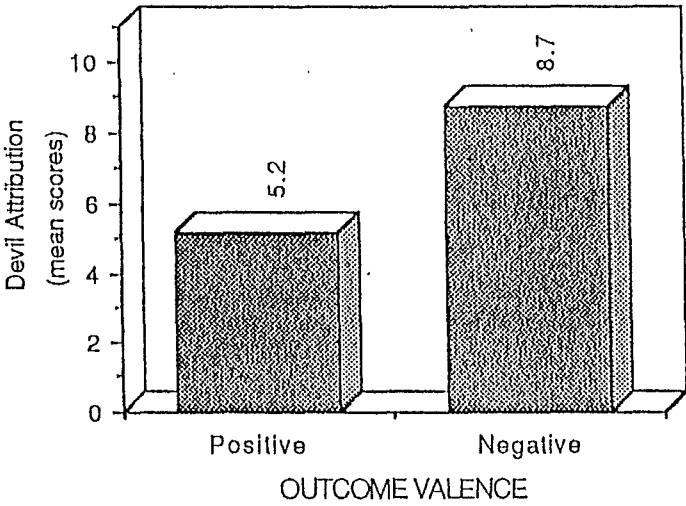


Figure 4. FORCED CHOICE GOD + DEVIL ATTRIBUTION
(by Scenario)

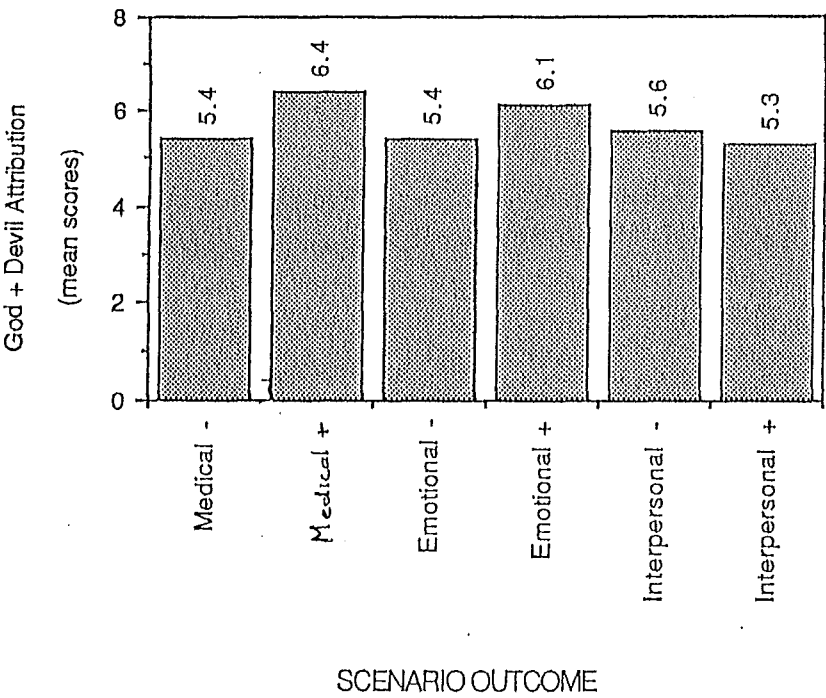


Figure 5. CAUSAL SEARCH
(by Domain)

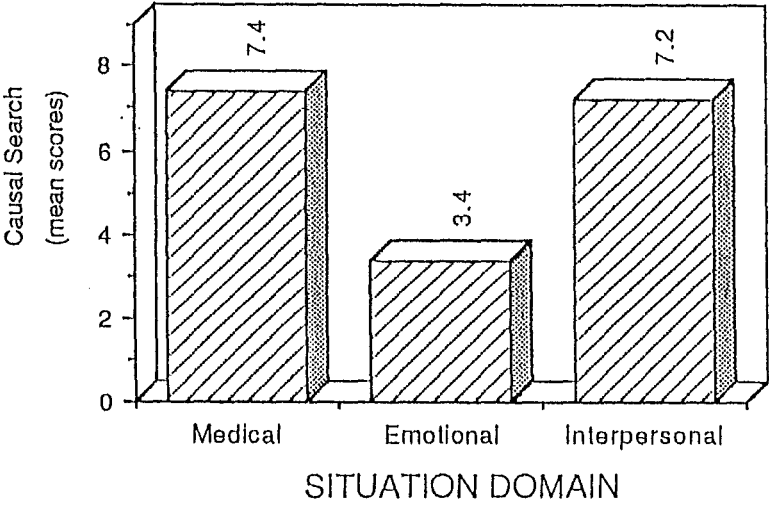


Figure 6. CAUSAL COMPLEXITY
(by domain)

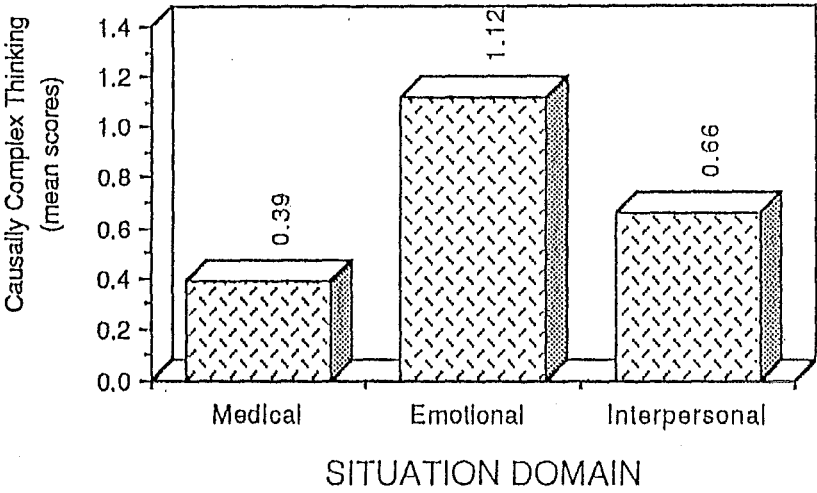


Figure 7. SPONTANEOUS ATTRIBUTION TO GOD'S PLAN
(by scenario)

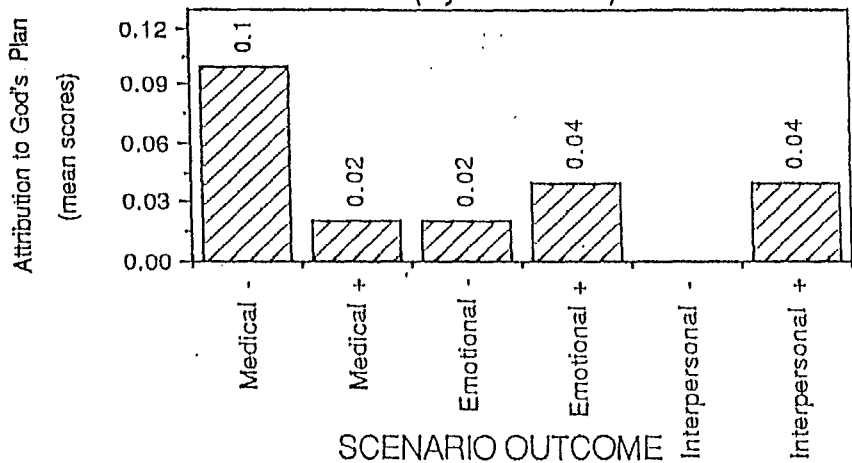


Figure 8. SPONTANEOUS ATTRIBUTIONS TO GOD'S WILL
(by scenario)

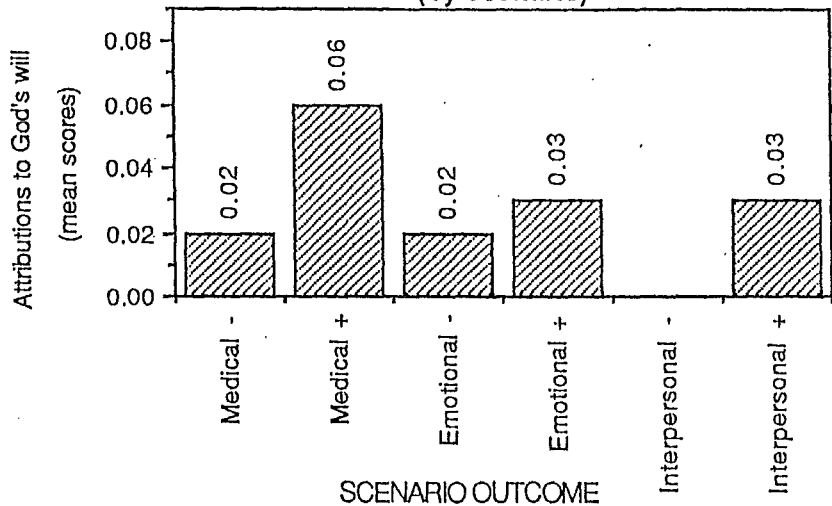


Figure 9. SPONTANEOUS ATTRIBUTIONS TO GOD'S CONTROL
(by Scenario)

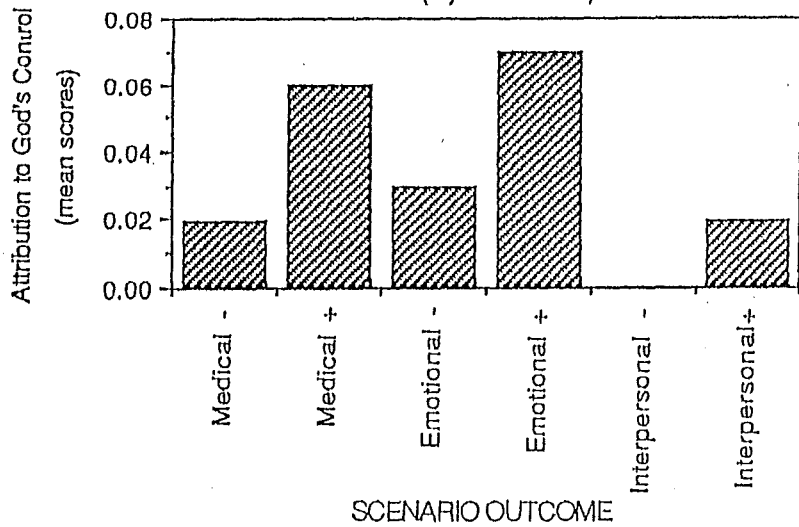


Figure 10. QUESTIONS ASKING GOD'S HELP
(by Domain)

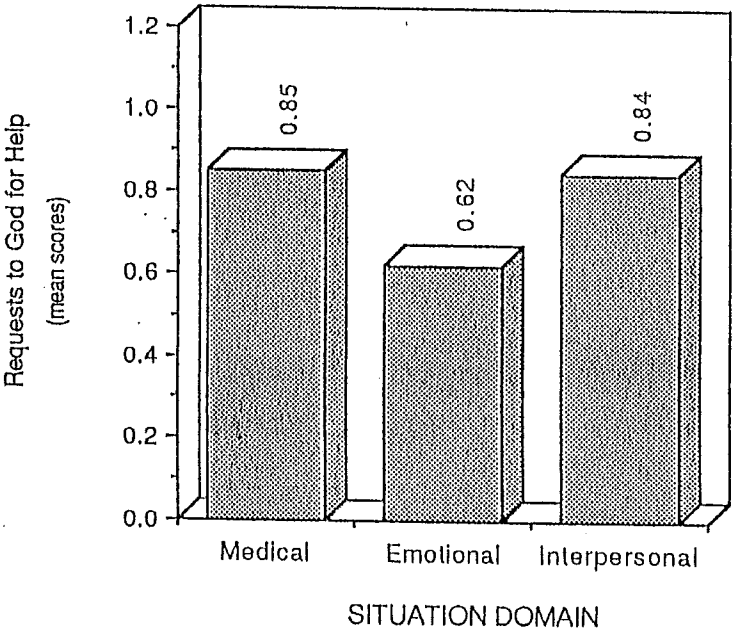


Figure 11. THANKING GOD STATEMENTS
(by Domain)

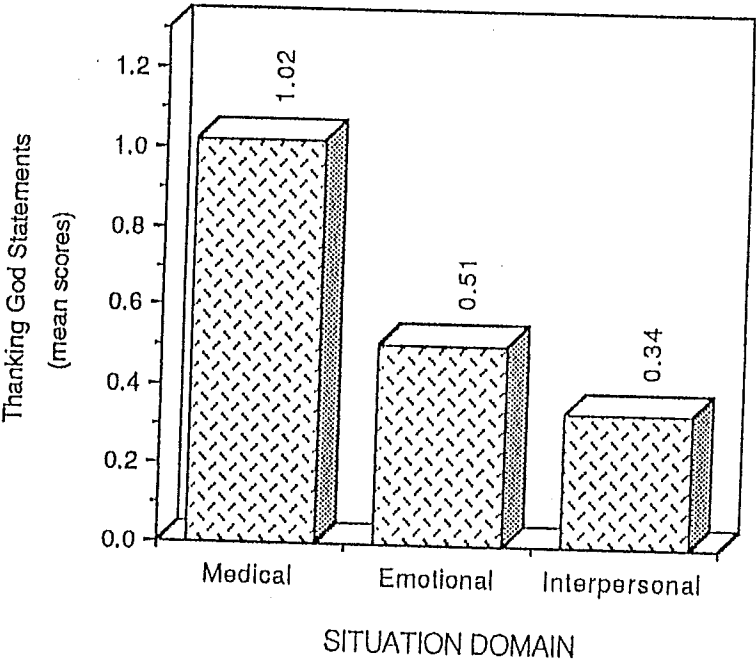


Figure 12. FAITH, & RELATIONSHIP WITH GOD STATEMENTS
(by Domain)

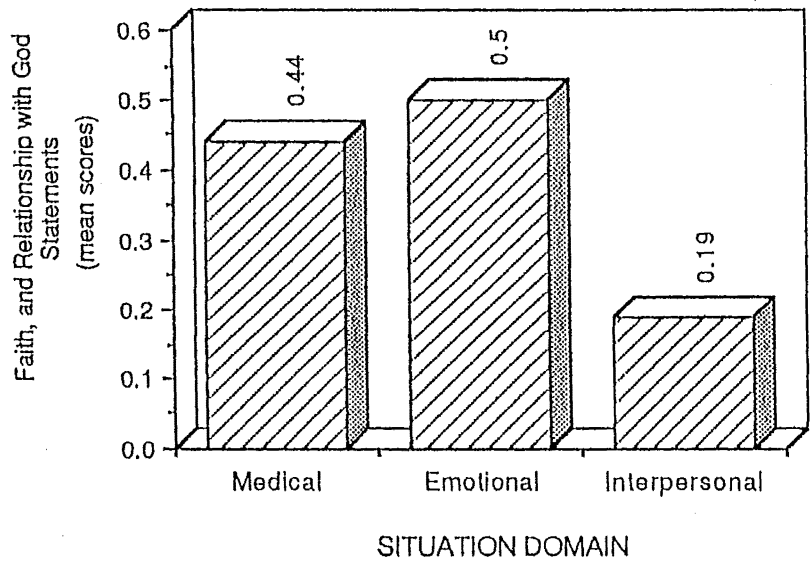
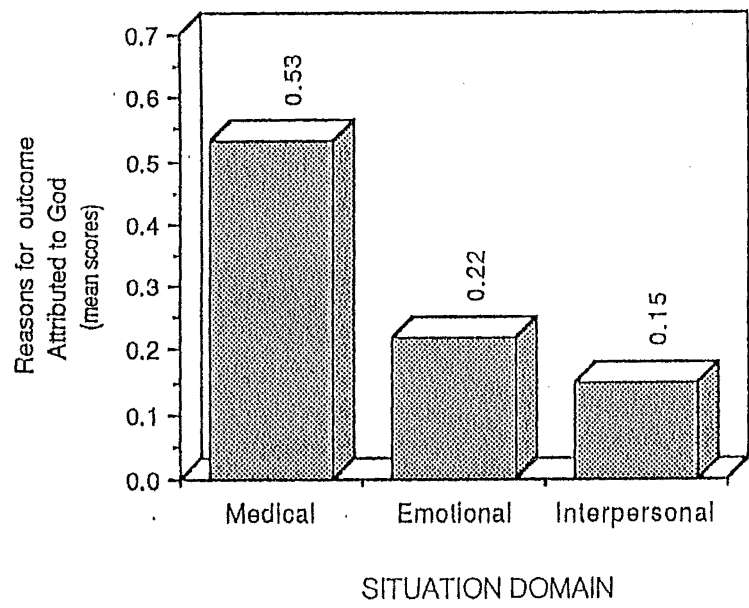


Figure 13. REASONS FOR OUTCOME ATTRIBUTED TO GOD
(by Domain)



4.1 Hypotheses Results

For Hypothesis 1:

Subjects spontaneously and causally attribute outcomes to God or the Devil.

As predicted spontaneous causal attributions to God or the Devil were produced. Spontaneous causal attribution to the Devil appears to be a limited phenomenon for this sample as only 3 people suggested that the Devil was causally responsible for any of the event-outcomes.

Figure 1a gives the mean number of spontaneous causal God attributions for each scenario outcome. From figure 1a it is evident that some of the sample spontaneously attributed outcomes to God. This occurred for all scenarios. There were 99 spontaneous outcome attributions to God for the sample giving an average of 1.4 God attributions per person (0.22 per person per scenario). Just over half of the sample (42 out of 74 = 0.6) spontaneously attributed at least 1 outcome to God.

Analysis on the cognitive style of these spontaneous attributions showed that:

8% were tentative or speculative;

92% were confident;

75% were implied;

25% were directly stated.

In contrast to the 99 outcome attributions to God, 44 spontaneous initial event attributions occurred. Only the outcome attributions are analysed in this thesis.

For Hypothesis 2:

God is invoked more for favourable outcomes than unfavourable outcomes.

Spontaneous Method

Hypothesis 2 is confirmed. There were a greater number of spontaneous causal attributions to God for favourable outcomes than for unfavourable outcomes (Figure 1b). A 2x3 repeated measures Manova found that the effect of valence (favourable vs unfavourable outcomes) upon spontaneous causal God attribution was significant at $F = 28.79$, $p < .0001$ (see Appendix D, Manova Summary table(1)).

Forced Choice Method

Similarly, God's causal influence was seen as greater in favourable than unfavourable outcome situations (figure 2b). A 2x3 Manova found the effect of valence upon God's rated causal influence was $F = 69.41$, $p < .0001$ (Appendix D, table(2)).

For Hypothesis 3:

Attributions to the Devil only occur for unfavourable outcomes.

Spontaneous Method

Only 3 people spontaneously attributed any outcomes to the Devil's power. All attributions occurred for the unfavourable outcomes, as predicted. Attributions occurred in all three situation domains; medical, emotional and interpersonal situations, but this result has little if any generalisability

power since only 3 subjects spontaneously attributed to the Devil.

Forced Choice Method

As figure 3b indicates, there was a significant difference in Devil attribution for favourable vs. unfavourable outcomes occurring in the predicted direction (Valence $F = 56.3$, $p < .0001$ - Appendix D, table(3)). However, causal attribution to the Devil did also occur for favourable outcomes, which is not predicted by hypothesis 3. Moreover, 47 subjects (.64 of the sample) thought the Devil causally contributed to any of the outcome situations.

There was also a significant multivariate situation domain effect for the Devil as a perceived cause (Domain $F = 17.1$, $p < .0001$, which is corroborated by the univariate average test). Greatest Devil attribution occurred in the emotional domain scenarios while the interpersonal domain produced the lowest Devil attribution ratings. A significant Domain \times Valence interaction effect for Devil ratings exists ($F = 12.6$, $p < .0001$), which on further inspection reveals that causal attribution to the Devil is comparatively low for the medical-negative scenario.

For Hypothesis 4:

Attributions to God are stronger in Medical than Emotional or Interpersonal situations.

Spontaneous Method

Spontaneous God attributions did vary as a function of Situation Domain (see figure 1c). Significant multivariate differences were evident as $F = 9.21$, $p < .001$ (Appendix D table(1)). The pattern of variation was not the one predicted however. Although figure 1c indicates that more spontaneous causal God attributions were produced in the Medical scenarios the difference is not significant at the .05 level. One unequivocal result though, is that significantly fewer God attributions were produced in the Interpersonal situations than the other domains. Both difference contrasts reached high significance ($p < .0001$).

Significant multivariate and univariate effects for Domain x Valence (multivariate $F = 3.2$, $p = .0001$) were found. The most important contrast noted the differences between Emotional x Valence and Medical x Valence distributions ($F = 10.1$, $p = .001$). Figure 1a highlights the relatively high attribution mean for the Medical-Negative scenario compared to the other negative scenarios.

Forced Choice Method

As expected, causal attributions varied as a function of situation domain (figure 2c). The multivariate F equalled 7.55 $p = .001$ (Appendix D (2)). Again as hypothesised, God

attributions were stronger in Medical than in the Emotional or Interpersonal situations ($F = 11.18$, $p = .001$). There was no significant difference between emotional or interpersonal situations with respect to causal attribution at $p = .05$.

A Domain x Valence multivariate interaction effect of $F = 3.14$ was significant only at the .05 level: The Medical-Negative scenario produced relatively high God attribution ratings compared to the other negative scenarios.

For Hypothesis 5:

All the religious belief scales positively correlate with causal God attribution. The frequency of God's personal influence and the belief that God directly intervenes in one's life are the best predictors of causal God attribution.

Spontaneous Method

This hypothesis is partially supported. The correlation matrix (Appendix C(1)) gives the bivariate correlation coefficients between religious scale and spontaneous attribution scores. An overall picture of the correlations suggests that the religious scales have medium correlations (of around $r=.4$) with spontaneous causal God attribution. Correlations do not vary greatly from scale to scale. The one exception is the scale measuring the belief that God's predestined plan determines the outcome of all events which did not correlate with spontaneous causal God attribution. Q5 also had low correlations with the other religious scales. The Religious Comfort scale had most in common with the universal

predestination belief.

According to simple coefficients, the two scales that correlated most highly with total spontaneous causal God attribution were Saliency-Cognition ($r = .49, p = .0001$) and Religious Comfort Beliefs ($r = .48, p = .0001$). This result is contrary to predictions.

The multiple correlations essentially corroborate the simple coefficient results. Stepwise analysis indicated that Saliency: Cognition accounted for the greatest unique variance of the causal God Attribution Tendency. Religious comfort was the only other scale to have any significant unique correlation with "the spontaneous attribution tendency". Table 3 below, provides Beta values.

Table 3.

<u>Multiple Correlations of Religious scale scores with Total</u>		
<u>Spontaneous Causal God Attributions</u>		
<u>Scale</u>	<u>Beta</u>	<u>F Change</u>
STEP 1: <u>Saliency: Cognition</u>	.481	21.3, $p < .0001$
STEP 2: <u>Religious Comfort</u>	.290	5.1, $p = .05$

Hypothesis 5 is not confirmed for spontaneous attributions.

Forced Choice Method

The second correlation matrix (Appendix C(2)) displays bivariate correlations between each subjects Total Forced Choice God Attribution, and the religious scales. The consistent trend

is of moderate to high correlations at around $r = .65$ ($p < .0001$). The universal predestination item (Q5), and the scales measuring God images correlated at relatively low levels of under $r = .35$ ($p = .001$) with forced choice God attributions.

Appendix C2 shows that the items measuring the frequency of God's personal influence (Q1), and God as a direct personal intervener (Q2) correlated most highly with the Forced Choice attribution tendency of all the scales.

Multiple correlations confirm this finding (see table 4 below).

Table 4.
Multiple Correlations of Religious Scale Scores with
Total Forced Choice God Attributions

<u>Scale</u>	<u>Beta</u>	<u>F Change</u>
STEP 1: Q1	.704	64.9, $p < .0001$
STEP 2: Q2	.429	18.3, $p = .0001$
STEP 3: Q4	.232	4.3, $p = .05$

The exact predictions of hypothesis 5 are confirmed for forced choice attribution. The scales developed in this thesis to measure the personal perception of how, and how often God influences oneself are the best individual predictors of the

forced choice God attribution tendency. Q4 scales God's influence in one's life through "the Word of God" (usually understood as The Bible) and is the next most powerful individual predictor.

For Hypothesis 6:

Loving God image positively correlates with God attribution for positive outcomes.

Spontaneous Attributions

Causal Attributions to God 'appear' to be moderated by God Image according to the simple correlations (Table 5.).

Table 5.

Correlations between God Image Factors and Spontaneous

<u>God Image Factor</u>	<u>Causal God Attribution</u>		<u>Total Outcomes</u>
	<u>+ Outcome</u>	<u>- Outcome</u>	
Loving God	.342 ***	.243 **	.383 ***
Punishing God	.235 *	n.s.	.255 *
Personal God	.362 ***	.187 *	.383 ***
Omni God	.331 ***	n.s.	.369 *

(p: * = .05; ** = .01; *** = .001; **** = .0001)

Generally God image had a low to medium correlation with attribution to God for the outcomes, but when variance from King and Hunt's (1972) religiosity scales - (Devotionalism and Salience Cognition) is controlled for, no partial correlation relationship exists. Therefore, one's God image per se does not affect spontaneous God attribution according to the statistical results. Instead it is assumed religiosity is the more important determinant of religious attribution.

However, as predicted, subjects who see God as loving did attribute a greater number of outcomes to God than those who did not consider God to be so loving. The qualification of this result is that those who see God as loving also attributed more outcomes to God in negative outcome situations than those who did not see God as loving. In other words, if people see God as very loving they will be likely to say God is responsible for both positive and negative outcome situations. Furthermore, this relationship is not greatly moderated by a punishing image of God: partial correlation of Loving God scores with God attribution scores (controlling for Punishing God) gave $r = .312$, $p < .01$ for the positive outcomes and $r = .192$, $p = .05$ for the negative outcomes.

Forced Choice Method

The same findings with respect to hypothesis 6 were evident using the rating method of obtaining attribution scores. In fact, the pattern and strength of correlations virtually duplicated the spontaneous correlations given in Table 5. Again

religiosity accounted for much of the God image variance with respect to causal attribution, and again there were positive correlations between a Loving God image and both favourable and unfavourable outcome attributions.

One interesting difference between the two methods' results is that the attribution to God scores did not significantly correlate with an omni God concept: That is, God is primarily seen as omniscient, omnipresent and all powerful by subjects regardless of their tendency towards religious attribution.

For Hypothesis 7:

One's punishing God image positively correlates with God attribution for negative outcomes.

For both methods there were no significant correlations between those who held a punishing God image and attribution to God in unfavourable outcome situations (Table 5). Nobody in the sample viewed God as being more punishing than loving, and the correlation between a loving and punishing image was moderately high at $r = .447$ ($p < .0001$). All these findings provide indications that dyadic (or complementary) loving God and punishing God images contain similar components of religiosity.

For Hypothesis 8:

An active personal God image positively correlates with God attribution.

In the same fashion as the loving God image relationship with God attribution, small positive correlations existed for positive, negative and combined situation outcomes (Table 5). No relationship existed when Hunt and King's religiosity dimensions were controlled for. These findings apply for both the forced choice and spontaneous response methods.

For Hypothesis 9:

Younger subjects produce stronger causal God attributions than older subjects.

Spontaneous Method

The younger subjects spontaneously attributed more outcomes to God than older subjects, as hypothesised. This effect was marginal at $r = -.210$ ($p = .05$). When subjects were grouped as either young or old, and included as a between variables factor in the Manova no significant situation differences arose (see Appendix D, table (1)).

The only other age effect was that older subjects were slightly more prone to believe in God's personal influence through universal predestination (Q5), as $r = .195$ ($p = .05$). No age effect was evident when the forced choice method was used.

For Hypothesis 10:

Females produce stronger causal God attributions than males.

There were no significant sex differences using either methodology, though the trend was in the predicted direction.

An interesting find was that females tended to see God as predetermining all events more so than males (The oneway anova F equalled 4.4, $p = .01$).

4.2 Natural vs. Supernatural Causation

Gorsuch and Smiths' (1983) results gave limited support for a "God in the Gaps" theory of attribution style, which postulates that people attribute events to God only when no natural causes are seen as responsible. My results also give partial support to a moderated "God in the Gaps" attribution style.

Forced Choice Attribution

There appeared to be two types of attribution, as there was a small negative relationship between attribution to the "natural" causes of luck and self with supernatural attribution ($-.314$, $p = .001$ and $-.25$, $p = .01$ respectively). Causal attribution to God did not correlate with attribution to either other people or fate. In fact, attribution to fate only correlated with attribution to luck, although very highly ($r = .661$, $p < .0001$).

Further support for a God in the Gaps attribution style is noted, as distinct natural vs. supernatural patterns of

attribution appeared. Attributions to the natural causes "luck", "others", "self", positively intercorrelated. Attributions to the religious supernatural causes of "God" and "the Devil" also positively intercorrelated at a high level of $r = .665$ ($p < .0001$).

Spontaneous attributions to natural and supernatural causation confirm the forced choice results above and although correlations are generally lower, natural vs. supernatural causation patterns were very similar.

4.3 God vs. the Devil as Causal Agents

Spontaneous attributions to the Devil were very rare, but forced choice attribution to the Devil was much more frequent. Three relevant forced choice trends are outlined below:

1. Those who saw God as an important cause also tended to rate the Devil as a significant but lesser cause ($r = .655$, $p < .0001$). The mean average rating for God as a cause is $M = 3.2$ (a slight to moderate cause), compared to the Devil at $M = 2.0$ (a very slight cause).
2. Situation differences between God and Devil attribution were strong. God was seen as more influential in determining positive outcomes than the Devil. Conversely, the Devil was seen as more influential than God in determining negative outcomes, with the exception of the medical negative outcome. Patterns of God attribution between domain factors are reversed for Devil attribution.
3. The above findings give rise to the question: Do the causal

attribution ratings to God and the Devil across different situations produce a supernatural attribution constant? Interestingly, this may be the case (see figure 4) although the interpersonal event-outcomes and the negative valence outcomes produce slightly fewer supernatural attributions. There was a tendency towards a constant God and Devil causal attribution effect across situation types.

4.4 Spontaneous Causal Search and Complexity

Spontaneous Causal Search

Spontaneous causal questions and speculations as a reaction to crisis situations were manifestly prominent. The spontaneous coding category "Questions Concerning Cause" identified the subject's explicit questions that concerned the causal origin of the outcomes.

Fifty six subjects (75% of the sample) spontaneously responded to the situations they were placed in by expressing their desire to find the cause(s) of the events and outcomes. Seventy one causal search questions were produced at an average of 1 per person, or .17 per person per scenario. The content of these questions ranged from the simple question; "Why me?" to more complex speculations involving the evaluation of possible causes, e.g. "Did God let me down or was this caused by Satan?"; "Is God working in their hearts?" or "How could I be so stupid?" The phrase "Why me?" appeared to be a popular and automatic reaction to negative outcomes.

Figure 5 clearly shows that Emotional situations incur about half as many causal search questions as Interpersonal or medical situations. This was the primary situation effect.

Causal Complexity

Causal complexity was identified by coding causal attributions and reasoning that went beyond the simple attribution to a specific cause such as "oneself", "God" or "other people".

Some attributed situations to abstract causes such as fate or probability. The individual's philosophy about causality was sometimes revealed: e.g. "These things just happen. It isn't really fate but it's just something you've got to cope with. They just happen."

Attributions to abstract causes were not nearly as frequent as the attribution to a series of interrelated chains. Reasons and explanations for events were often produced through the linking of causes. In the following example the causes have been underlined:

"... after the break the refreshment gives me confidence and I decide to work hard ... it drags me down and before exams I become anxious ..."

The above example also illustrates a pervasive characteristic of subjects' causally complex thinking, namely that, outcomes were often attributed to much more specific causes than the general categories of "self", "others" or "God". Thus, attributions to one's anxiety, confidence or even a refreshing break were significant and specific causal attributions.

Figure 6 illustrates that spontaneous causal complexity was

significantly greater in Emotional than other domains. This is a complete reversal of the trend regarding causal search.

4.5 Spontaneous attributions to God's Hand;

God's Plan; God's Will; God's Control

The phrase "attributions to God's Hand" is synonymous with the phrase "spontaneous causal attributions to God". These attributions are examined in the previous sections. The other spontaneous attribution categories, to God's, plan, will and control are considered to be of a different nature than attributions to God's hand.

God's Plan or Purpose

Attributions to God's plan or purpose are forms of intention attributions that usually appeared as a statement such as "I would accept this as part of God's plan".

Fifteen people (20% of the sample) elicited 30 God's plan attributions in total. Two thirds were confidently stated and one third of these were tentative or speculative. Figure 7 illustrates the patterns of these attributions across the situations encountered. No valence differences occurred but God's plan attributions to the medical negative scenario were easily the greatest.

God's Will

Attributions to God's will may be equivalent to plan or purpose attributions, however they were coded separately. Here is an example of an attribution to God's will: "God must want this to happen". The terms such as "desire", "want", "will", "expect" were characteristic of an attribution to God's will, e.g. "God desires this"; "It's the Lords will" etc.

Fourteen people (20% of the sample) attributed at least one outcome to God's will. Attributions to God's will showed similarities to attributions to God's control and causal God attributions across the situations. Also notable situation differences with attributions to God's plan were evident: God's will was mostly invoked for the medical-positive outcome (figure 8) whereas God's plan was mostly invoked for the medical-negative outcome (figure 7).

God's Control

Attributions to God's control express the belief that God is in control. They are not specific to God's effect or intervention but emphasise a general belief or faith in God as "in control of things". One subject states: "I realise that whatever happens, the situation is up to God (Jesus) and he is in control". This type of global attribution was rare for the sample, as only 10 people (14% of the sample) attributed the situation to God's control. There were 15 of these attributions but all were clearly confident.

Even though there were only a few God control attributions, patterns across the situations were virtually the same as the attribution to God's Hand patterns (see figures 9 and 1a). In

addition, religious comfort beliefs and sectarianism gave the greatest religious scale correlations with attribution to God's control.

4.6 Non Causal Religious Thinking

The majority of religious thinking responses naturally fell into one or more of the designated categories: "Asking God's help"; "Thanking God"; "A Change or confirmation of faith and relationship with God"; "God's reasons" behind the event-outcomes. Subjects tended to ask God's help and thank God far more than they expressed the status of their religious faith or speculated upon God's reasons.

Asking God's Help

Forty two people (57% of the sample) spontaneously asked for God's help giving a total of 171 requests. Examples were: "Please God let me live a little longer!" and "I pray for guidance to help me through this time".

Figure 10 illustrates that fewer requests for help resulted in Emotional than in other domains. The religious scales that correlated most highly with the request for God's help were;

<u>Q4</u> - "God's Word" as personal influence,	$r = .4225, p < .0001;$
<u>Q1</u> - Frequency of God's influence,	$r = .4101, p < .0001;$
<u>One's control of God by prayer,</u>	$r = .4012, p = .0001.$

Thanking God

Fourty seven subjects (64% of the sample) thanked God. There were 149 thanking God statements. Virtually all of the thanking God statements were also coded as implied causal attributions to God's Hand, therefore patterns across the different situations were similar for the categories of "thanking God" and "attribution to God's Hand". However one dissimilarity was that the medical domain scenarios produced far more thanking God statements than the emotional or interpersonal domains (figure 11).

Thanking God statements had most in common with one's Control of God by prayer, Religious comfort and the frequency of God's personal influence (Q1). Correlations with these scales were all in the vicinity of $r = .500$, $p < .0001$.

Religious Faith and Relationship with God

Thirty two subjects (43% of the sample) elicited 90 such thoughts in total. These thoughts concerned the status of the subjects' religious faith or their relationship with God or Jesus, for example:

"I guess, to have gone that far I would have had to lose faith in God, I should repent, and try to find my way back into His will."

also

"God has deserted me..."

Some of these thoughts imply that the subject was causally attributing the outcome to a loss of faith in God, or in some

cases to God's inaction. Other thoughts reflected a glorification of God, and closer personal bond between God and the subject, due to the situation outcome turning out all right.

Notable variation across the situations was evident. Interpersonal scenarios elicited very few faith or God relationship statements (refer to figure 12). The devotionalism scale and the belief in direct personal intervention were most important for subjects who spontaneously linked their religious faith or relationship with God to the crisis situations.

God's Reasons

This religious coding category encompassed attributions to God's reasons behind the outcomes, as well as attributions to God's plan. There were few people who went beyond the attribution of God's plan to speculate upon what God's plan was, It was more common for subjects just to attribute unspecified meaning and purpose to event-outcomes, as in the following:

"I'd accept that maybe God allowed this to occur in order that something good come of it - but goodness knows what!"

God's plan or rationale behind unfavourable outcomes was sometimes speculated upon. The speculation generally reflected the subjects positive outlook and God's altruistic motives, rather than a form of punishment by God. For example:

"Maybe God wants me to help and counsel other paraplegics".

Sixty eight God rationalisation speculations were produced by 28 subjects (40% of the sample). The medical domain elicited the greatest number of speculations (figure 13), and in a similar vein to statements that give thanks to God, the

religious scales of Control by prayer. Religious comfort and Q1 - (the frequency of God's personal influence in life) correlated most highly with attribution to God's reasons.

4.7 Spontaneous vs. Forced Choice Causal

God Attribution

A synopsis of the findings is included below. Statistical comparisons of spontaneous causal attributions (produced by the thought listing probe) with forced choice causal attributions (elicited by the rating of experimenter defined causes) are summarised.

Direct Correlations

The attributions for the forced choice categories were correlated with their spontaneous counterparts. That is, the tendency to spontaneously attribute to a causal category was compared with the tendency to attribute to that causal category using the forced choice method.

The correlations between the two methods for all the structured causal categories are displayed in table 6:

Table 6.

Spontaneous vs. Forced Choice
Attribution Correlations

God = .3406, (p = .001)
Self = .2754 (p = .01)
Luck = .2921 (p < .01)
Fate = .3059 (p < .01)
Others = n.s. (p = .05)
Devil = n.s. (p = .05)

The correlations were quite low, with definite differences between spontaneous and forced choice attribution to other people. Similarly, the amount of causal attribution to the Devil largely depended upon the method used to gauge attributions.

Attribution to God was most consistent across methodologies for the interpersonal situations ($r = .430$, $p < .0001$) and for the positive situations ($r = .3600$, $p < .001$).

In addition to the correlation coefficients above, the two methods were compared by seeing if those subjects who rated God as having some causal effect on any of the outcomes (using the forced choice format) also spontaneously attributed to God. Cross tabulations indicated that 63 subjects causally attributed to God using the forced choice method whereas only 36 of these spontaneously attributed to God. Two subjects spontaneously

attributed to God without rating God as having any causal influence while only 4 subjects gave no attribution to God of any sort. According to the uncertainty co-efficient which evaluates nominal association, it must be concluded that we can not confidently predict that a subject spontaneously attributed to God, just from the knowledge that she rated God as having some influence.

However if it is known that the subject rated God as causally responsible to a moderate extent (averaging for all the situations $M = 3.0 =$ to a moderate extent) we can be much more confident in the prediction that the subject spontaneously attributed to God. In addition, subjects who rated God's causal influence below this threshold level tended not to spontaneously attribute to God. The uncertainty coefficient of .107 and a Lambda value of .322 were obtained. These statistics scale the accuracy of predicting whether a subject has spontaneously attributed to God, purely from a knowledge that his/her forced choice score lies above or below the threshold level.

Distribution Differences

There were positive skews for most attribution to God distributions. This skew was far more pronounced for spontaneous attributions to God because a non response was treated as a valid interval scale score. The non response represented zero attributions. Many subjects did not spontaneously attribute to God at all, therefore a large number of non responses were coded. For this reason problems due to the excessive positive skew made data analysis and interpretation difficult tasks.

interpretation difficult tasks.

Situation differences were more pronounced for spontaneous God attributions (compare figure 1a with 2a). This situation difference exaggeration was also evident for spontaneous attribution to any source. It is the nature of the spontaneous responses (or the nature of the coding) which determined the large situation differences. It was also interesting that far more spontaneous attributions to all sources occurred in emotional situations than in other domains.

Forced Choice vs. Spontaneous God attribution -

Hypothesis results

1. A very large difference in attribution to the supernatural was that only three people spontaneously noted the Devil as a probable cause of any of the situation outcomes yet 47 people rated the Devil as being to some extent causally influential in any outcome when they were provided with a rating scale.
2. The religious scales from Part 2 that correlated most highly with spontaneous attribution were not the same ones that correlated most highly with forced choice attribution. Religious Comfort Beliefs and Religious Cognitive Salience had the most in common with spontaneous causal God attribution (to God's hand) whereas the more direct items of Q1 and Q2 gave the best account of forced choice causal God attribution.

Section 4.6 Summary

Differences between spontaneous and forced choice attributions, such the as weak although generally significant correlations and seemingly inconsistent attribution responses were important findings. Religious cognitive salience, prayer and comfort provided by religion were most important for spontaneous God attribution, but the more direct scales concentrating upon the mode and amount of God's influence tended to reflect forced choice causal God attribution. Despite some distribution differences the patterning of attributions remained reasonably static across methodology.

CHAPTER 5

DISCUSSION OF RESULTS

5.1 Spontaneous Causal Attributions to God and the Devil

The results provide strong evidence that a significant number of Christians do spontaneously attribute certain personal event-outcomes to God. Just over half of the sample invoked God as a cause of one or more outcomes. Further, the number of spontaneous causal attributions to God were far greater than the number of spontaneous attributions to other people, luck, fate, or the Devil. There were slightly more spontaneous attributions to oneself than to God. These findings emphasise that for certain personal outcomes, God may be seen as an important cause by many Christians.

In contrast to the above result, spontaneous causal attributions to the Devil were only elicited by three of the seventy four subjects. Attribution to the Devil in the situations described by the scenario is therefore considered as a significant phenomenon for only a very small and select group of subjects. Further work is needed to determine the dispositional factors that lead to Devil attributions.

The paucity of spontaneous attributions to the Devil indicates that the Devil was not cognitively salient in the minds of the majority of subjects (see Pryor and Kriss 1977 for

a discussion of salience and the attribution process). Either subjects did not view the Devil as an important cause of any outcomes, or they did not think about the Devil at all. When the Devil was made more salient by the presentation of the causal scale ("the Devil") attributions to the Devil were more frequent.

It was interesting that for those who attributed to both the Devil and to God, each outcome tended to be explained as resulting from a constant amount of supernatural (God+the Devil) causation. The amount of supernatural attribution was very similar for all situations. The implication is that, for many of the subjects, God and the Devil are seen as having a certain amount of influence on important events in their lives. However, an important qualification is that only when the Devil was suggested as a possible cause of important events in one's life (or only when the Devil concept is made particularly salient) was the amount of supernatural attribution similar for all these life events. It is possible that this finding is purely an artifact of the forced choice method used to scale attributions.

An alternative, although less likely explanation, is that many subjects attributed outcomes to the Devil but did not list these attributions because they considered Devil attributions to be inappropriate for the aims of the investigation. If this was the case, then the thought listing method failed to elicit open spontaneous thoughts. However, many of the subjects listed thoughts that appeared to give very open and detailed accounts

of their personal beliefs. Moreover, there does not seem to be a good reason why subjects would think it inappropriate to list Devil attributions but appropriate to list God attributions.

5.2 Forced Choice vs. Spontaneous Methodology

In contrast to the small number of spontaneous Devil attributions, forced choice attribution to the Devil was a much more significant phenomenon. The reason for this difference most likely stems from the nature of the two methods.

Once a causal scale such as "the Devil" is presented to the subjects, the the concept of the Devil becomes more salient in their minds and therefore they are more likely to attribute to the Devil. Pryor and Kriss (1977), Taylor and Fiske (1977) and Reyes et al (1980) found that the greater the salience of a possible causal agent, the greater the attribution to that source. Subjects may also have thought that the experimenter expected them to rate the Devil as a cause for some outcomes, hence they may have exaggerated their perception of the Devil's influence. This suggests an inherent weakness in the forced choice scales, that the forced choice method is too direct to capture subjects' spontaneous attributions.

Although forced choice causal attributions were compared with spontaneous causal attributions it was not possible to determine the validity of the forced choice method. Correlations between attributions for the two methods were low. This is partly due to the number of spontaneous attributions not

being an accurate measure of the perceived extent of causal influence. It is also possible that certain causes were attributed to the outcomes but not considered as important causes, hence the attribution was not listed. It is unlikely that subjects listed every thought that came into their heads. It could be that potential causes have to be at a certain threshold level of importance or salience before they are perceived as causing an event.

For those subjects who spontaneously attributed outcomes to God, the three factors of religious comfort, cognitive salience of God, and prayer seem to be very important. These factors gave the best account of variance contained in the spontaneous God attribution scores. In contrast, it was the belief that God frequently and directly intervenes in one's life that best accounted for forced choice attribution to God.

This difference between forced choice and spontaneous God attribution is not easily explained (although, two possibilities arise:)

Firstly, it is plausible that the two methods were not measuring exactly the same variable. The number of spontaneous attributions to God may have been most indicative of the importance of personal prayer, the importance of God, and the comfort provided by the belief that God is looking after oneself. The number of spontaneous God attributions, however, might not have been such a good indicator of the extent of causal influence ascribed to God. It could be that the forced choice task provided a better measure of the extent of causal

influence ascribed to God because subjects were explicitly directed to rate this variable.

Secondly, the cognitive salience of religion accounted for a large proportion of the spontaneous God attribution variance. The importance and impact of God to the subjects largely determined whether subjects would spontaneously invoke God as a cause for any of the outcomes.

5.3 Confidence of Spontaneous Causal Attributions to God

Clear and confident spontaneous attributions to God were far more common than tentative or speculative attributions (Over 90% of the attributions were clear and confident). It is not clear whether the confidence of the attributions reflects a general attributional style, the religiosity of the subjects, or the nature of the situations attributed to God. It was found, however, that spontaneous causal God attribution correlated most highly with the scales that measured the belief that God would answer a personal prayer, and the comfort provided by religion. These two factors may produce confident rather than tentative attributions. Further analysis is needed to test this possibility.

5.4 Valence of the Event Outcome and God Image

Evidence from previous research indicates that God's causal influence is seen as greater for favourable outcomes than for unfavourable outcomes. Both the spontaneous and forced choice God attributions follow this pattern.

Although the effect of outcome valence on internal attributions (attributions to self) has been vigorously researched (Wong and Weiner 1981), the reasons why favourable outcomes should produce the greatest amount of God attribution has not been examined. This phenomenon is compatible with several explanations.

Firstly, people may not want to blame God for negative-unfavourable outcomes because this expresses a dissatisfaction with God's actions. To defy God's will may seem unattractive for many Christians (Spilka and Schmidt 1983).

Secondly, people may not like to think that God who is in control is responsible for a large number of negative outcomes. They may then feel that they have little control over any negative consequences that occur in the future. This second possibility is derived from Walster's (1966) "defensive-protective hypothesis" (Ritzema 1979).

Thirdly, following Heider's (1958) account of balance theory, someone who holds positive sentiments towards God will tend to relate positive outcomes with God (Ritzema 1979).

A fourth possibility, and one that is similar to the balance theory account is simply that people will attribute outcomes

that are compatible with their God image. Thus, those who strongly believe in a loving God, but not in a punishing God, will attribute outcomes to God that are expressive of His loving character, that is, the favourable-positive outcomes. Conversely, a punishing God image is linked to unfavourable-negative events and so cognitive dissonance may be avoided in this way. Only this God image account is examined here.

Benson and Spilka (1973), Pargament and Hahn (1986), Roof and Roof (1984) note that God tends to be viewed in loving rather than punishing or vindictive terms. God was viewed as more loving than punishing by all subjects in the present New Zealand student sample and it could well be that this view is representative of a large proportion of New Zealanders. Peters (1986) summarised results from an Australian survey:

"Eight out of ten Australians believed in God, most of them regarded him as a Good mate who helped out in times of trouble... Only 7.5% of the survey sampled saw God as cold judgemental or stern."

This trend most likely dominates for the New Zealand public also.

A Punishing God image did not correlate with God attributions for negative outcomes. This result is contrary to the God image account of attribution to God. Instead, the loving and punishing God image factors appeared to reflect general religiosity, and thus do not explain why attribution to

God was greatest for positive outcomes. God image factors were all positively correlated with each other, and moreover, they did not correlate with God attribution when religiosity variance was controlled for. Other research has noted that God images are not strong determinants of conceptual style (Sternberg 1979). Similarly, God image factors appear to be saturated with religiosity components (Fisher et al 1986; Spilka Hood and Gorsuch 1985). Considering God image factors as dimensions of religiosity, may instead be a pertinent way to explain the findings.

It is concluded that loving or punishing God images per se (controlled for religiosity) have little effect on the amount or strength of attribution for positive or negative situations.

God images may function in more subtle ways (Brown 1984). They may also be of greater consequence amongst particular sectarian groups (Nelsen et al 1973). It was found in the present investigation that the older female subjects who held sectarian views tended to stress the punishing nature of God. Potvin (1977) noted the same trend. The reasons why most attributions to God occur for positive outcomes rather than for negative outcomes needs further attention.

5.5 Domain of the Situation

Attribution to God was affected by the domain of the situations.

Other research has indicated that the health domain is a fertile area for God attributions to take place (Pargament and Hahn 1986). In general, previous research findings were corroborated. Forced choice attribution to God was strongest in medical situations.

The subjects' desire for control and search for meaning in the negative medical outcome (accident) may account for this result: severe physical ailment is often a serious threat to long term functioning, and sometimes one's existence. In order for subjects to find a sense of meaning or purpose for the health crisis, they attributed the unfavourable outcome to God's plan or purpose. The empirical results of this study confirmed that spontaneous attribution to God's purpose or plan, and the reasons for the events attributed to God were most frequent in the medical domain. This is despite the fact, that spontaneous attributions to God's hand were slightly more frequent in the emotional domain and, in fact, the emotional domain produced the greatest number of attributions to any source.

The questionnaires were completed around exam time when the emotional scenarios were probably most relevant to subjects. In addition, the emotional situations described the subjects' failure in a familiar University setting. These two context factors could explain the large amount of general

attributional activity in the emotional domain.

One assumption is that attributions to God's purpose or plan, and the reasons for events attributed to God allow greater meaning to be obtained than mere causal attributions to God. This implies that subjects faced with a health crisis attempted to find meaning in the events by attributing to God's plan or purpose. Their further speculations of God's reasons behind the events also suggests they were searching for meaning. The function of God in providing meaning appeared to be greatest in these health situations. Therefore, empirical support is given that the importance of meaning provided by God, is greatest when experiencing a physical health crisis.

The need to predict and control a health crisis may also be great. Personal control in such situations is often limited and people may feel they are at the mercy of doctors or other external forces. It is possible that subjects believed they could gain some control over their unpleasant physical state by attributing the medical events to God. Subjects who believed their petitionary prayers to God would be causally efficacious may have felt that they have some control over the outcome. The Control of God by Prayer scale correlated relatively highly with spontaneous attribution to God's hand, as did other items concerning the importance of prayer and comfort. A likely explanation for these results is that the Control of God by Prayer scale measures the importance of prayer in providing comfort in times of stress. That is, the scale is not so

indicative of the belief that one can control God by prayer. The "Control of God by Prayer" scale correlated highly with other personal prayer and comfort items, which provides further evidence for this explanation. Subjects may well have invoked a cognitive response set to answer many of the questions concerning prayer. Therefore, the individual items concerned with prayer may have been treated more as a group than as individual items. Fisher et al (1986) describes this as the "Halo-effect". Despite this tendency, there were some comments from subjects such as, " If I asked God to help me cope with things, God would help me". They qualified this belief by adding; "but not always in the way I expect". Hence, petitionary prayer may be based upon a general faith that "God will help somehow" rather than the specific belief that certain events can be manipulated through petitionary prayer.

In conclusion: firstly, it would appear from the results that the function of petitionary prayer in times of crisis is not so much to personally control God (and thus control the outcomes), but is more to provide comfort and security in times of stress. Comfort and security provided by God are particularly important for those people who pray to God for help when experiencing a health crisis. In this sense God attributions may function as an aid to coping.

Secondly, attributions to God's purpose or plan function to provide meaning to those who experience a stressful health crisis. The acquisition of meaning or purpose through God

attribution may also function to aid coping.

5.6 Attribution to God: A Religiosity Component of Religious Belief Systems

Attribution to divine intervention was a good indicator of religiosity. Two of King and Hunt's (1972) religiosity dimensions (Saliency: Cognition, and Devotionalism) correlated quite highly with both spontaneous and forced choice causal attribution to God and the correlations were higher than those obtained by Ritzema (1979).

The other religious scales also positively correlated with God attribution which reaffirms Ritzema's (1979) and Gorsuch and Smith's (1983) contention that attribution to God is an important component of religiosity.

Age and Sex

The God attribution trends followed the religiosity trends confirmed in a number of previous studies. God attribution was slightly greater for girls than for boys but only marginally so. Younger subjects were more inclined towards God attribution although this trend was not statistically significant. It was postulated that these age and sex trends are due to differences in religiosity but this need not be the case. Previous research shows that females tend to be more attributionally complex than males (Fletcher et al 1986). The female subjects may have thus

been more inclined to elicit causal attributions. Possibly female subjects produced more attributions than males because they were more easily influenced by their perceptions of the experimenters aims. Sex and influencibility is a controversial issue (Eagly 1978; Eagly and Carli 1981).

5.7 Supernatural vs. Natural Causation

It is suggested by the author that people attempt to find meaning, a sense of security and comfort by attributing happenings to God that are not easily controlled by oneself, for example, terminal cancer; thus attribution in medical events may function for these purposes.

In this study God was seen as having more control over these situations than oneself. However, there was a large amount of attribution to both God and self for the emotional domain situations. A "God in the Gaps theory" of attribution dictates that God is only used to explain an outcome when natural causes do not explain it (Gorsuch and Smith 1983). Clearly then, this rather unsophisticated "God in the Gaps" theory of attribution does not account for the large amount of attribution to both natural causes and to God in the emotional domain situations.

The results suggest that a moderated version of the God in the Gaps theory may account for the relationship between attribution to God and attribution to natural causes; that is, despite some situations producing much attribution to both

natural and supernatural causes, the overall correlation between attribution to natural sources and attribution to God was negative. Furthermore, the total forced choice attribution to God and the Devil correlated negatively with forced choice attribution to the natural causes of self, other people, and luck. Hence, there was a general tendency for attribution to both God and the Devil (the supernatural) where natural causes were not seen as important.

Bourque and Back (1971) argue that those who possess a religious language can describe and explain mystical experiences, whereas those who do not have a religious language find certain mystical experiences difficult to explain. In a similar fashion, many of those who have a religious belief system usually can explain events that are not easy to explain by natural phenomena. Although the characteristics or context of the events are important determinants of religious attributions, ultimately it is the salience and availability of a religious belief system that determines whether events will be attributed to religious sources. The concepts of salience and availability are discussed by Taylor and Fiske (1975), and Reyes et al (1980).

5.8 Causal Search and Complexity

The process of attribution is not always instant (Smith and Miller 1983). According to (Hastie 1984) causal search is most likely when the outcome is negative and unexpected. The results of the present study convey the importance of causal search for unexpected and negative outcomes. The majority of the sample listed at least one causal search question, and the most common response to the negative situation was, "Why me?". "Why me?" was usually the first thought listed and thus is probably a fairly automatic reaction to the events. From analysing the spontaneous scripts it was evident that this question often expressed subjects' frustration and distress, as well as a search for reasons why the negative outcome happened to them. There were also several more complex questions involving God's role in events, for example: "Is God working in their hearts?".

A relevant finding was that outcomes that were seen as being caused by oneself, tended to produce causally complex thinking but not so much causal searching, while outcomes that were seen more as a result of external causes gave the opposite pattern. Exactly why these patterns occurred is not clear, although it is probable that causally complex thinking helped subjects to explain the reasons behind their failure or success once an internal attribution was made.

attribution of reasons to God occurred for the medical negative outcome, for example, "Why is God's plan in leaving me paralised" and "Maybe God wants me to counsel other paraplegics". Subjects speculated upon God's plan and reasons behind a negative outcome. In that sense, they searched for meaning and direction after the crisis has occurred. This further search for meaning and purpose in response to a crisis was not so evident for attributions to God's hand (causal attributions), God's will, and God's general control.

Subjects also produced non attributional religious thoughts when freely responding to situations they were faced with. The thoughts were directed towards asking God's help, thanking God, and confirming the status of personal faith. Different aspects of a person's meaning belief system were important for these types of religious thoughts. This is evidenced by the correlations of the religious scales with the spontaneous religious thoughts. For example, "God's Word" (the Bible) was very important for those who spontaneously asked for God's help; while those who spontaneously thanked God, regarded the comfort provided by religion, and the belief that God would help them as important. For those who monitored the status of their religious faith and relationship with God, their closeness to God was most important to them. These results attest to the different types of religious thoughts that arise as people experience a life crisis. Further work on the belief component correlates of such thinking is needed before the individual significance of each type of thought response can be clarified.

5.9.5 Methodological Implications, and Suggestions for Future Research

This study has focussed upon the importance and characteristics of spontaneous attributions to God for Christian subjects who were faced with various hypothetical events, both favourable and unfavourable. They were asked to imagine that these events were really happening to them.

In general, the results of previous research (that have used forced choice rating methods) have been supported. However, attributions need not be elicited through the reactive forced choice method: they may instead be captured through the spontaneous thought listing probe which provides an indirect method of capturing attributions. Fewer attributions are likely to be produced using the thought listing probe but they will be more indicative of the subjects' own cognitive structure and attributional thinking; for example, this study found that it was likely that attributions to the Devil (scaled by the forced choice method) were largely the result of methodological artifacts. The forced choice method probably increased the salience of the Devil, and also structured or led subjects to attribute outcomes to the Devil.

The coding and statistical analysis of spontaneous responses is a more difficult and time consuming task than for forced choice designs but the problems of the indirect thought listing

probe appear to be outweighed by the benefits:

Firstly, subjects are less likely to produce responses that are reactive to the method of investigation in spontaneous designs hence the external validity of the spontaneous response results is greater than results stemming from the rating of causes.

Secondly, the spontaneous thoughts that a person lists are rich in content and meaning. This allows the investigator to gain a more comprehensive understanding of the complexities of cognitive reactions to events.

Thirdly, the cognitions that are most important to individuals in crisis are highlighted by their spontaneous responses. The importance and integration of individuals' thoughts, attributions, and religious belief-meaning system components can thus be the focus of investigation; for instance, in the present study, the spontaneous method highlighted the importance of comfort, personal prayer and religion to those who spontaneously attributed to God. Furthermore, some subjects searched for meaning in their health crisis by speculating upon God's plan, purpose or reasons behind such an unfavourable situation.

It is suggested that the above advantages outweigh the problems associated with coding, scaling and statistically analysing the spontaneous responses.

The examination of people's spontaneous thinking and religious attributions in real life events would be more useful

than studying people's reactions to hypothetical scenarios. The indirect thought listing probe could be used to examine subjects' cognitions and attributions for events that have happened to them. If it is not possible to study personally experienced events, the presentation of scenarios on video is an alternative method. A video may portray events in a more natural manner than do the written descriptions (Grigg 1986). By encouraging a group of subjects watching the video to discuss freely their thoughts with others in the group, interactions and normative factors that influence religious attributions can be analysed. The groups could be religious, non religious or of any composition.

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Do this section first.

Thesis for an MSc in Psychology

Peter Van Dijk

AIM OF EXERCISE

Everyone thinks about particular events in their life in their own characteristic way. The purpose of this exercise is to find out how you would react to significant events in your own life. That is, what would go through your mind after being involved in a situation of importance to you?

INSTRUCTIONS

There are six different scenarios - (set of events, or stories). Please try and imagine that the scenarios are real and that the events described are important to you. You are the main character, so the events in effect happen to you.

Read the scenario then complete the task. If the same thought comes to mind in different scenarios write it down in any case.

PLEASE BE AS OPEN AS POSSIBLE. ALL RESPONSES ARE ANONYMOUS
SO THAT CONFIDENTIALITY IS ENSURED.

APPENDIX A1 contd.

Medical Negative (accident) scenarioSCENARIO

IMAGINE THE FOLLOWING

EVENTS: Walking across the road on the way to visit a friend you are hit by a car, and rushed to hospital by ambulance. Doctors tell you that as well as minor cuts you have spinal injuries, but they envisage a complete recovery soon.

OUTCOME: Unexpected complications arise and it becomes evident that you will lose all use of your legs. You will not walk again.

The above EVENTS and OUTCOME have happened to you...

TASK - List what goes through your mind with regard to the EVENTS and OUTCOME...

EVENTS:- Thanking God for Pulling through.
Relieved that it is only temporary.

OUTCOME: Resentment that doctors misled me
or did something wrong.
Why do complications need to arise.
Is this Part of God's Plan, or Is
Satan trying a new Trick?

APPENDIX A1 contd.
Medical Positive (cancer) scenario

SCENARIO

IMAGINE THE FOLLOWING

EVENTS: Your doctor has referred you to a general hospital for tests, after you complained of stomach pains. The tests reveal you have a fast growing, life threatening cancer. Doctors are not sure whether you will survive, but say that whether the cancer is terminal or not depends on how your condition progresses in the next few weeks...
 After two months your condition worsens and things do not look good for you.

OUTCOME: By the third month the cancer begins to remit. You soon regain your strength and prospects for a healthy future are now fine.

The above EVENTS and OUTCOME have happened to you...

TASK - List what goes through your mind with regard to the
 EVENT and OUTCOME...

EVENTS: Will I be Truly Saved by God.
 What lies on the other side.
 Is God about to take me from Earth?
 What is the Purpose to die so young?

OUTCOME: This was a test of faith that
 I would survive the illness.
 Was the Cancer caused by God, or
 my own "bad" self.

APPENDIX A1 contd.

Emotional Negative (results) scenarioSCENARIO

IMAGINE THE FOLLOWING

- EVENTS: Your university results have been worse than expected so far, and you must improve considerably in the third term to pass any courses. On starting the third term you feel more refreshed and are optimistic you can pass all courses if exams go well...
- OUTCOME: A week before final exams you become very anxious and depressed so decide to withdraw from university. You miss the final exams. Your depression deepens and you are ill for five months afterwards.

The above EVENTS and OUTCOME have happened to you...

TASK - List what goes through your mind with regard to the EVENTS and OUTCOME...

Events: - could have done better
 What a better chance if only I had worked.
 Have to do a lot of hard work.

Outcome: - Did God let me down or was
 this caused by Satan?
 The illness - am I possessed or
 have I really given up my life.

APPENDIX A1 contd.
Emotional Positive (job) scenario

SCENARIO

IMAGINE THE FOLLOWING

EVENTS: You lose your part-time job and try for several others but are not accepted for any. Without money from a part-time job you cannot stay at university. You feel trapped and discouraged, and your self esteem plummets. You feel on the verge of a nervous breakdown....

OUTCOME: Two weeks later your confidence improves and your outlook becomes more positive. Soon after you are hired in a suitable part-time job and feel happy and in control.

The above EVENTS and OUTCOME have happened to you....

TASK - List what goes through your mind with regard to the EVENTS and OUTCOME...

Events:- What does the future hold without any money?
Does God have a plan - is he changing my life?
Would God let me come close to a Nervous Breakdown.

Outcome: Feelings of happiness
Knowing that God is Looking After me.
Freedom from monetary worries.

APPENDIX A1 contd.
Interpersonal Negative (parents) scenario

SCENARIO

IMAGINE THE FOLLOWING

EVENTS: You love both your parents. Although they have not always been happy together the family unit is very important to you.
 This year your parents appear to get on better and you feel much happier in the home environment.

OUTCOME: Your parents' relationship starts to disintegrate as heated arguments break out. Any trust between your parents is lost as your mother accuses your father of sleeping with another woman, and files for divorce. Both parents are very bitter towards each other.

The above EVENTS and OUTCOME have happened to you...

TASK - List what goes through your mind with regard to the
 EVENTS and OUTCOME...

Events: Not Worrying about Parents Relationship.
 Would this be the start of a better future?
 Is God Working in Their Hearts?

Outcome: Rejection. Resentment.
 Discredited. Unbelief that it's really
 happening.
 Why does God want me Unhappy -
 Is this a test or temptation.

APPENDIX A1 contd.

Interpersonal positive (fiancé/e) scenarioSCENARIO

IMAGINE THE FOLLOWING

EVENTS: The person you are engaged to, and hope to marry soon has recently become unsure of their feelings towards you, so decides to go on a three week holiday in Australia to help sort out these feelings... You have not received any cards or telephone calls from Australia after one week and begin to suspect your loved one no longer cares for you...

OUTCOME: The next day your fiancé/e unexpectedly returns saying that they missed you so much, and want to marry earlier than planned.

The above EVENTS and OUTCOME have happened to you...

TASK - List what goes through your mind with regard to the EVENTS and OUTCOME...

EVENTS: How will I decide whether she really loves me or not?
Does God want this marriage?
Is she really a Christian - or has God instilled doubt in her.

OUTCOME: Still resenting the fact that she went away at all - or needed to.
Is she truly in love - or just infatuated etc.

(Part 2) completed by subject 44

Do This second

Thesis for M.Sc in Psychology

Peter Van Dijk

FOLLOW-UP

This questionnaire contains some follow-up questions to the scenario exercise completed.

Please rate all possible causes (a), (b), (c), (d), (e), (f) on the scales provided by circling the position of your choice for every scale.

Here is an example:-

SCENARIO....

EVENTS.

OUTCOME.

To what extent would the OUTCOME of the scenario be caused by

	Not at all	Very slight extent	Slight Extent	Moderate extent	Great extent	Very great extent
(a) you (the central character);	1	2	3	4	5	6
(b) luck;	1	2	3	4	5	6
(c) fate;	1	2	3	4	5	6
(d) God;	1	2	3	4	5	6
(e) Other people (whether in scenario or not)	1	2	3	4	5	6
(f) Devil;	1	2	3	4	5	6

If for example you think that you (the central character of the scenario) caused the OUTCOME to a slight extent, then circle position 3 on the scale next to "(a) you (the central character)".

If you also think luck caused the OUTCOME to a great extent, then circle position 5 on the scale next to "(b) luck;" etc.

Rate all causes (a) to (f).

3.

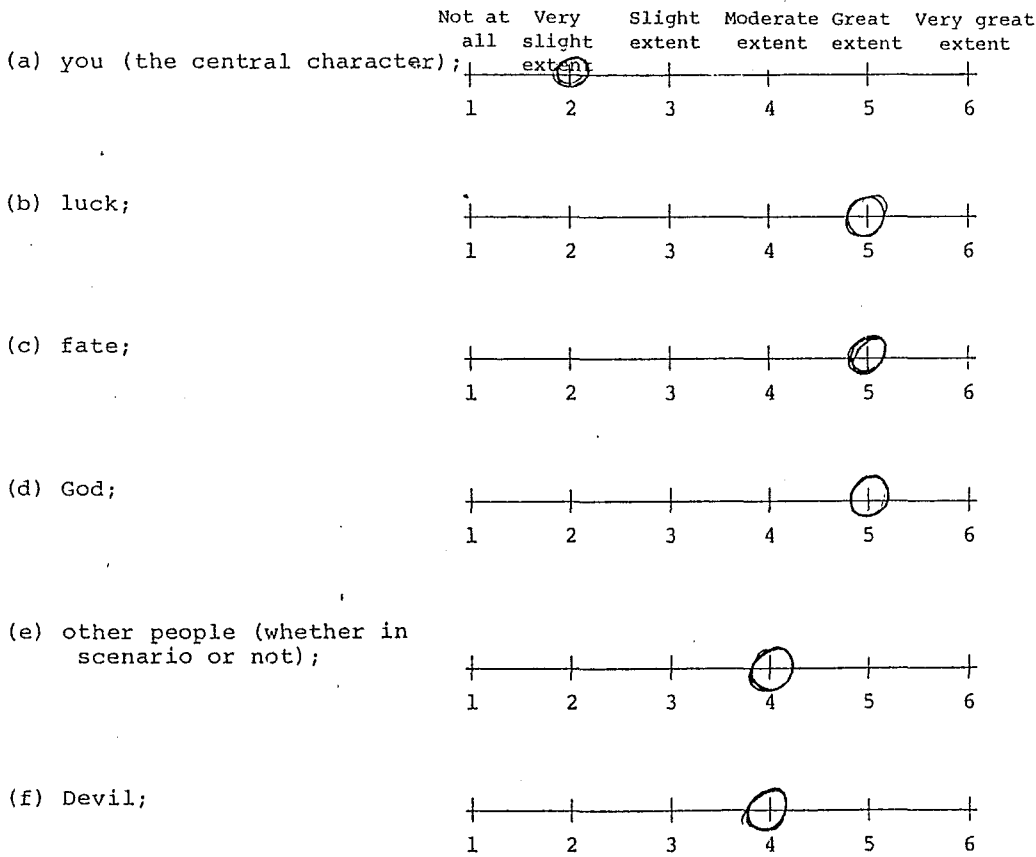
SCENARIO

IMAGINE THE FOLLOWING -

EVENTS: Walking across the road on the way to visit a friend you are hit by a car, and rushed to hospital by ambulance. Doctors tell you that as well as minor cuts you have spinal injuries, but they envisage a complete recovery soon.

OUTCOME: Unexpected complications arise and it becomes evident that you will lose all use of your legs. You will not walk again.

To what extent would the OUTCOME of the scenario be caused by:



6.

SCENARIO

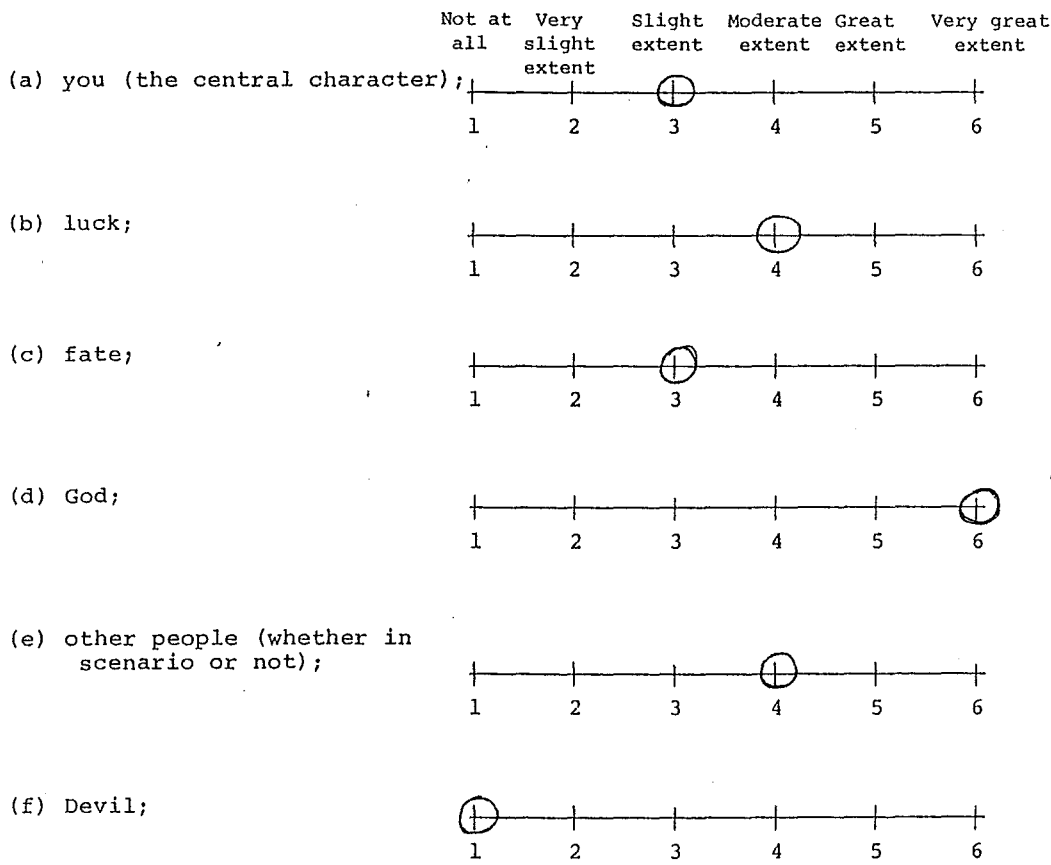
IMAGINE THE FOLLOWING -

EVENTS: Your doctor has referred you to a general hospital for tests, after you complained of stomach pains. The tests reveal you have a fast growing, life threatening cancer. Doctors are not sure whether you will survive, but say that whether the cancer is terminal or not depends on how your condition progresses in the next few weeks...

After two months your condition worsens and things do not look good for you.

OUTCOME: By the third month the cancer begins to remit. You soon regain your strength and prospects for a healthy future are now fine.

To what extent would the OUTCOME of the scenario be caused by:



5.

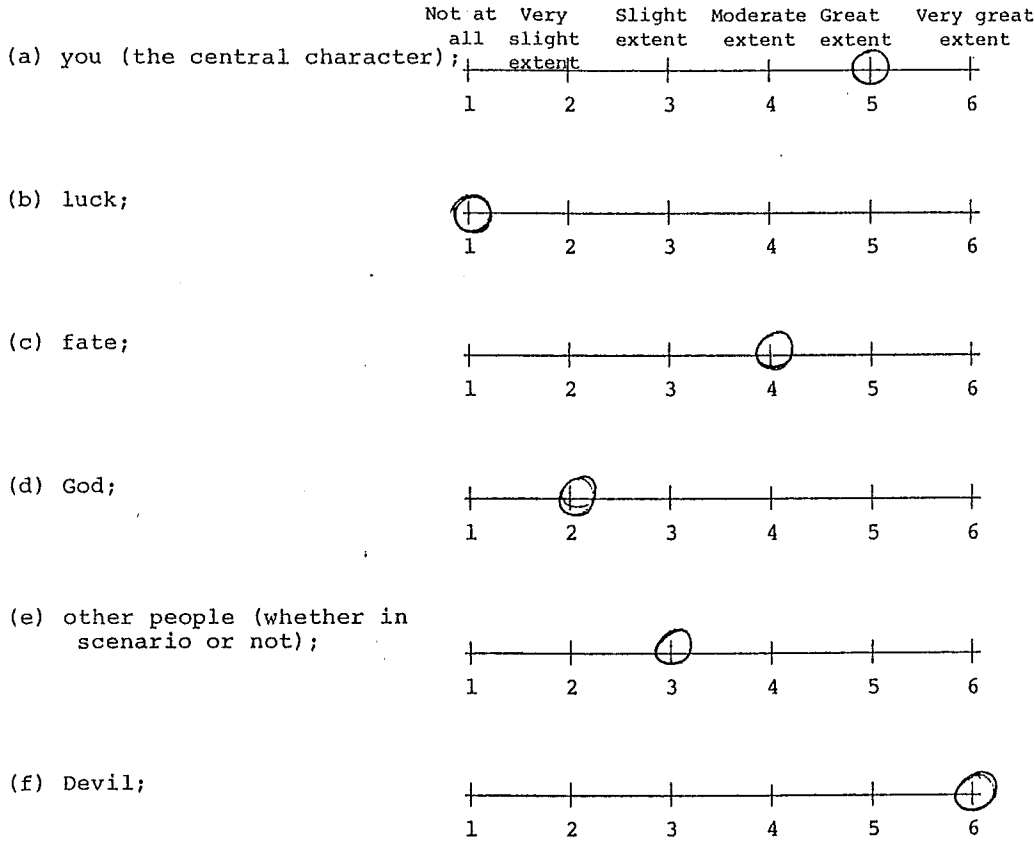
SCENARIO

IMAGINE THE FOLLOWING -

EVENTS: Your university results have been worse than expected so far, and you must improve considerably in the third term to pass any courses. On starting the third term you feel more refreshed and are optimistic you can pass all courses if exams go well...

OUTCOME: A week before final exams you become very anxious and depressed so decide to withdraw from university. You miss the final exams. Your depression deepens and you are ill for five months afterwards.

To what extent would the OUTCOME of the scenario be caused by:



4.

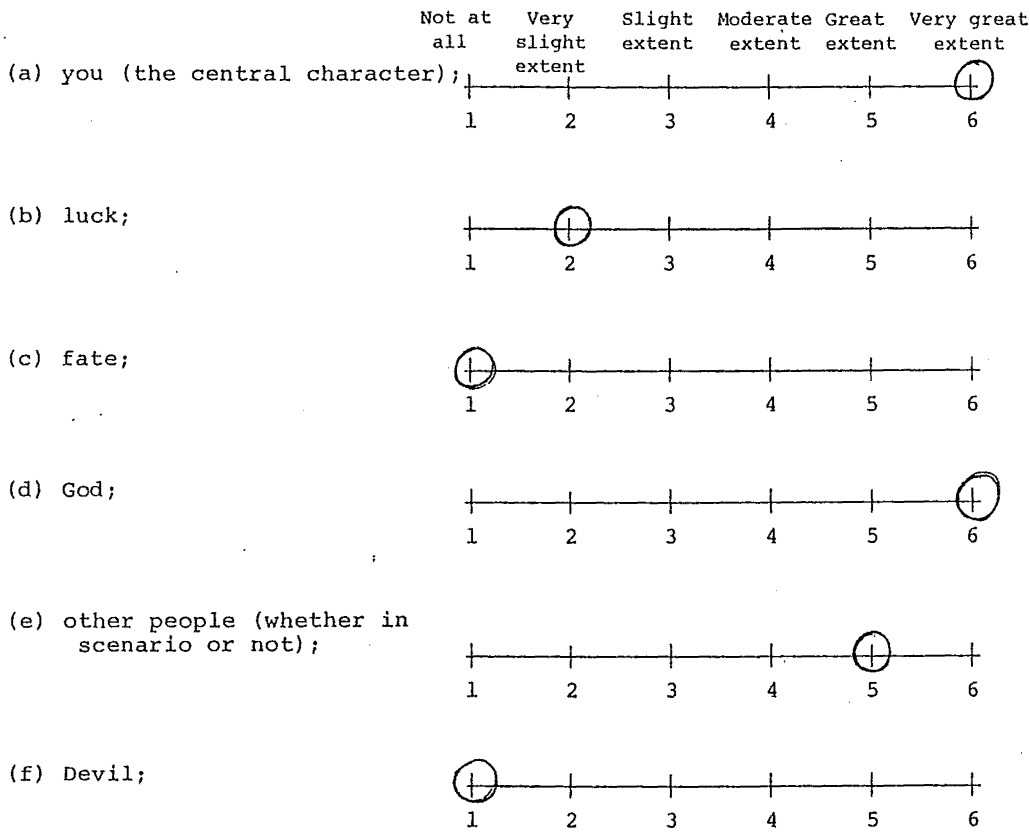
SCENARIO

IMAGINE THE FOLLOWING -

EVENTS: You lose your part-time job and try for several others but are not accepted for any. Without money from a part-time job you cannot stay at university. You feel trapped and discouraged, and your self esteem plummets. You feel on the verge of a nervous breakdown...

OUTCOME: Two weeks later your confidence improves and your outlook becomes more positive. Soon after you are hired in a suitable part-time job and feel happy and in control.

To what extent would the OUTCOME of the scenario be caused by:



2.

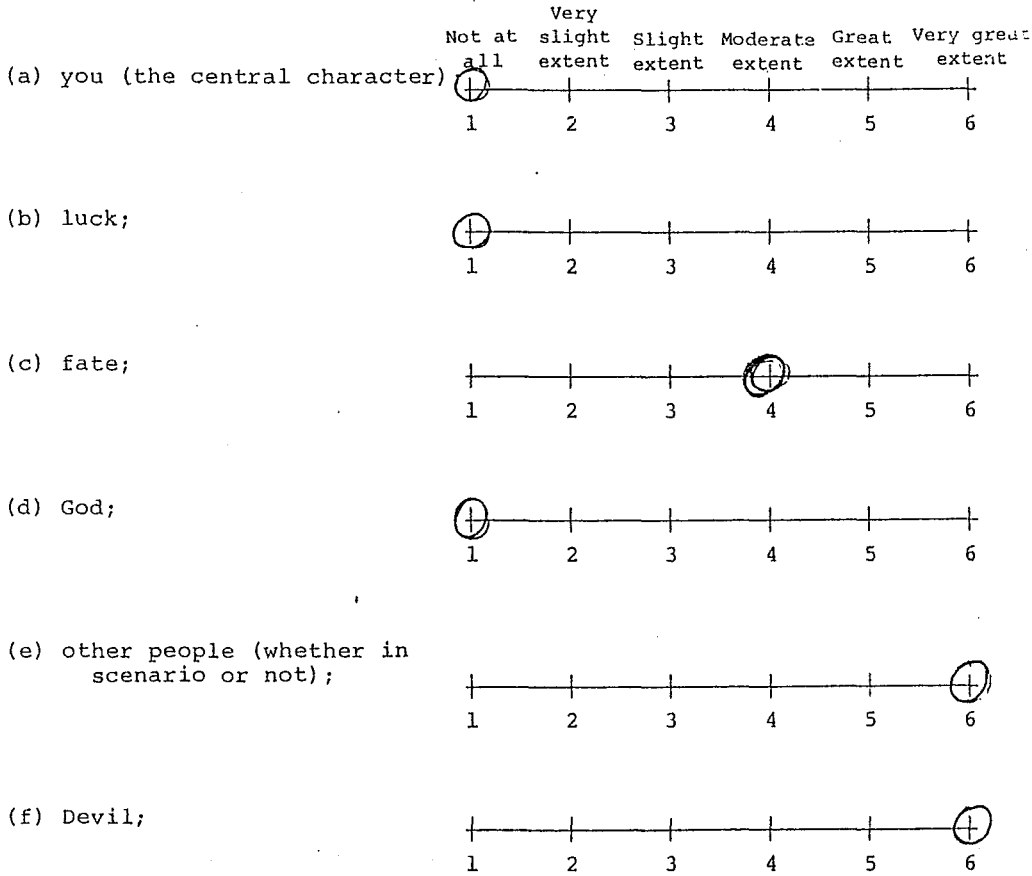
SCENARIO

IMAGINE THE FOLLOWING -

EVENTS: You love both your parents. Although they have not always been happy together the family unit is very important to you. This year your parents appear to get on better and you feel much happier in the home environment.

OUTCOME: Your parents' relationship starts to disintegrate as heated arguments break out. Any trust between your parents is lost as your mother accuses your father of sleeping with another woman, and files for divorce. Both parents are very bitter towards each other.

To what extent would the OUTCOME of the scenario be caused by:



7.

SCENARIO

IMAGINE THE FOLLOWING -

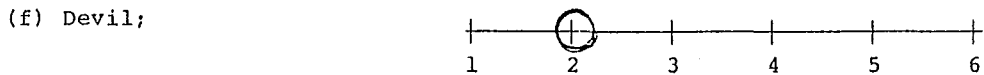
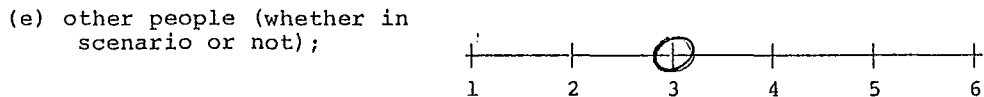
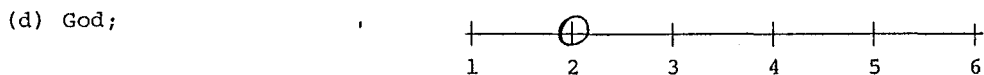
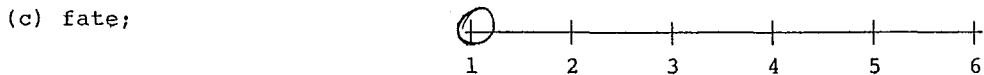
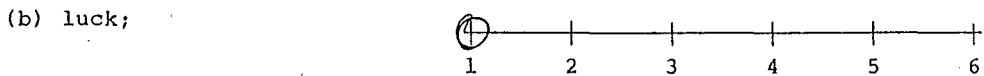
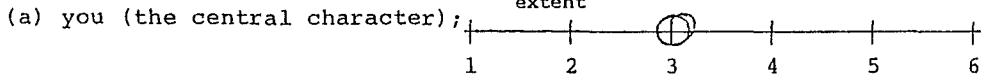
EVENTS: The person you are engaged to, and hope to marry soon has recently become unsure of their feelings towards you, so decides to go on a three week holiday in Australia to help sort out these feelings...

You have not received any cards or telephone calls from Australia after one week and begin to suspect your loved one no longer cares for you...

OUTCOME: The next day your fiancé/e unexpectedly returns saying that they missed you so much, and want to marry earlier than planned.

To what extent would the OUTCOME of the scenario be caused by:

Not at all Very slight extent Slight extent Moderate extent Great extent Very great extent



APPENDIX A3. Questionnaire - Religious scales(Part 3) completed by subject 44*Do this third.*

Peter Van Dijk

M.Sc Psychology ThesisQuestionnaire 3

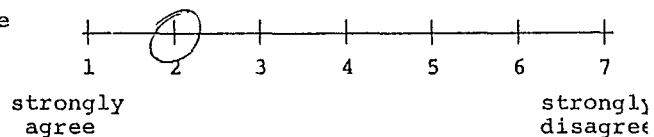
The aim of this last section is to find out about people's approach to religion, and their conception of God.

Where scales are provided, please circle one of the seven positions on the scale that best represents your view, or answers the question best.

Please answer all questions. I hope you find them interesting.

1. I think it is more important to go to church than to be active in politics.

Circle number on scale



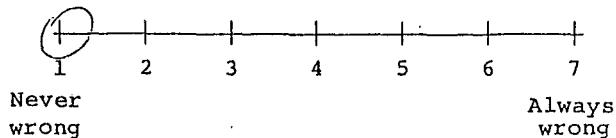
2. We all have been taught the Ten Commandments and we know of other scriptural statements concerning what we should do. Which of the following statements comes closest to your feeling about the Commandments?

Tick beside the statement of your choice.

- ☐ (a) The Commandments are to be followed because they are rules that God has given us in order to lead Christian lives.
- ☒ (b) The Commandments are to be followed because they give us a general idea how to live, but we must interpret them ourselves to fit the situation.

3. Would you tell me whether you think drinking alcohol is

Circle number
on scale



4. Here are four statements which have been made about the Bible. Which is closest to your view?

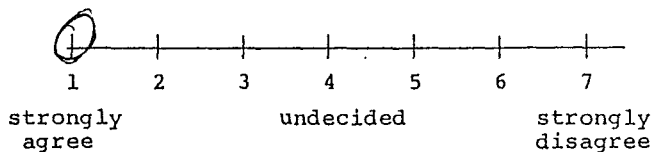
Tick beside the
statement of
your choice.

- ☒ (a) The Bible is God's Word and all it says is true.
- ☐ (b) The Bible is a valuable book because it is written by wise and good men who were inspired by God, and its basic moral and religious teachings are true, but because the writers were men it contains some human errors.
- ☐ (c) The Bible is a valuable book because it was written by wise and good men but God had nothing to do with it.
- ☐ (d) The Bible was written by men who lived so long ago it is of little value today.

5. How do you feel about this statement?

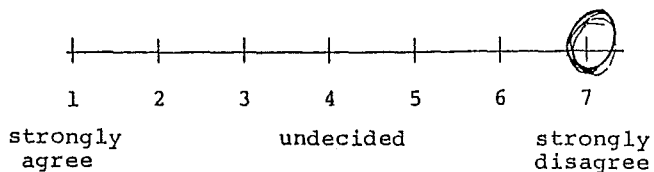
Testifying about one's religious experience should be part of regular church services.

Circle number
on scale



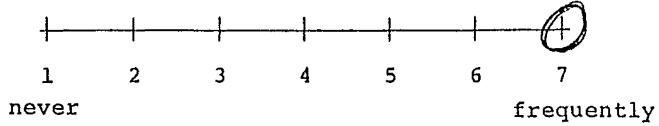
6. God sends misfortune and illness on people as punishment for sins.

Circle number
on scale

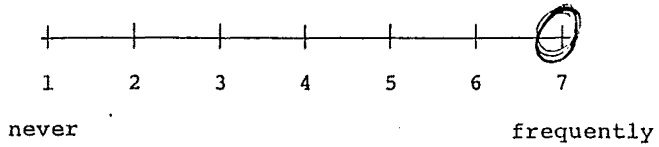


7. How often do you pray privately in places other than at church?

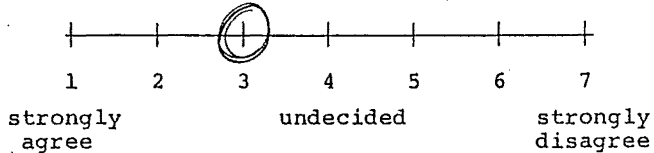
Circle number



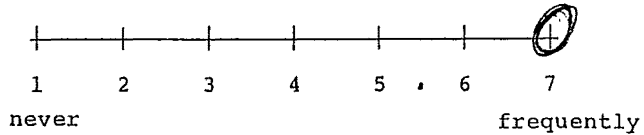
8. How often do you ask God to forgive your sin?



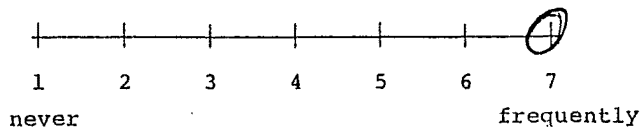
9. Private prayer is one of the most important and satisfying aspects of my religious experience.



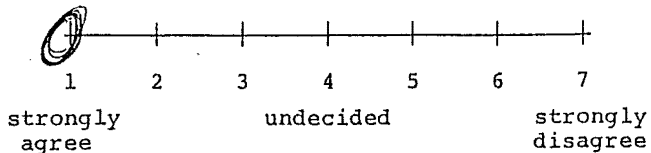
10. Through prayer, if you sincerely ask God to help you, how often will God help you?



11. When you have decisions to make in your everyday life, how often do you try to find out what God wants you to do?

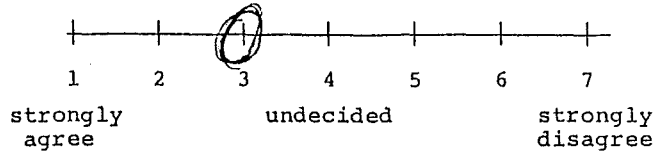


12. I frequently feel very close to God in prayer, during public worship or at important moments in my life.

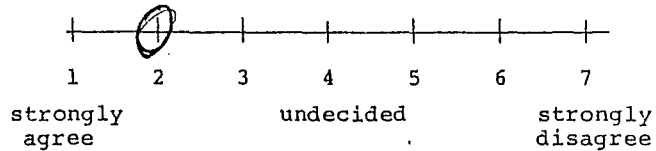


13. My religious beliefs are what really underlies my whole approach to life.

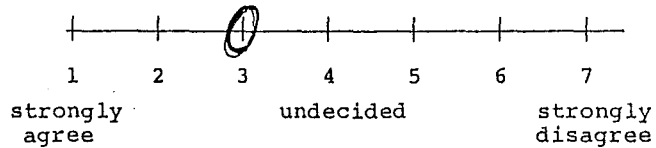
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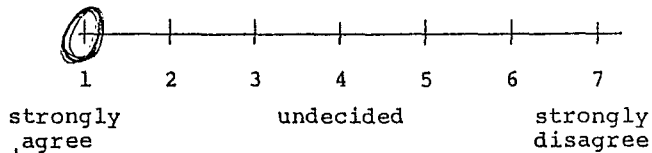
14. I try hard to grow in understanding of what it means to live as a child of God.



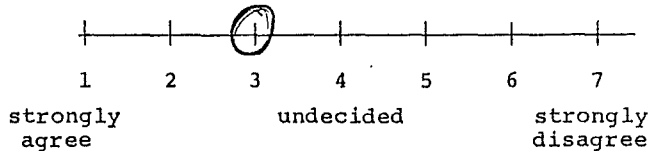
15. I try hard to carry my religion over into all my dealings in life.



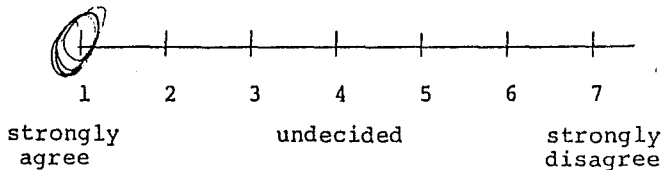
16. God sees to it that everything that happens to me, even the bad things will turn out for the best eventually.



17. God makes sure that my problems will work out.

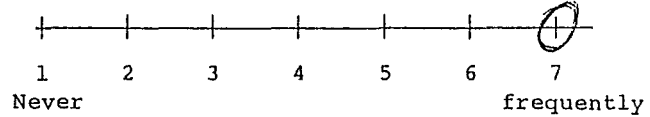


18. God has a plan for this world and everything that happens to us, even the suffering we sometimes endure is part of God's plan.



19. How often does God influence personal events in your life?

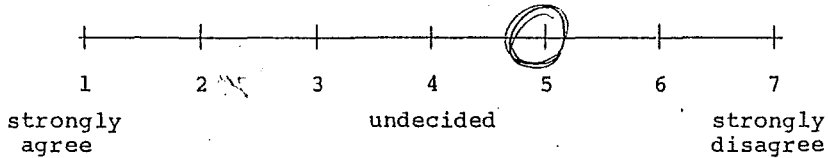
Circle number



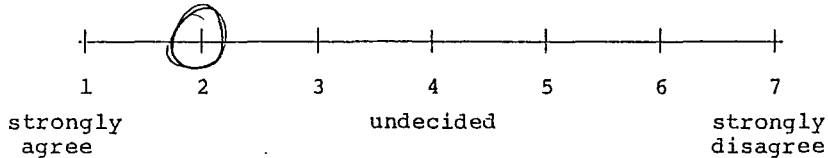
20. How do you think God influences events in your own life?

Below are some possible explanations. Answer all four.

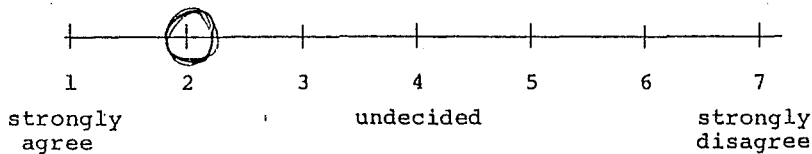
(a) God directly intervenes.



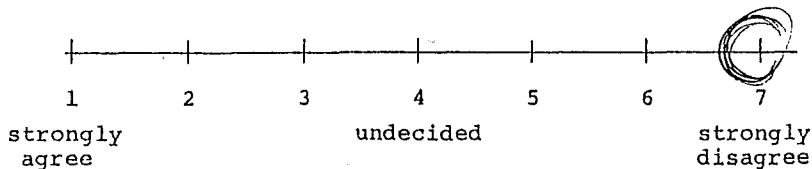
(b) God gives me signs so that I may make the choice God wants me to make.



(c) God's Word helps me to make the right choices at important moments in my life.



(d) God's predestined plan determines the outcome of all events.



6.

If you have a different understanding of how God influences your life than any of the four views above, briefly write your understanding below.

God Only Helps Those Who Help Themselves-
God gave man Freedom of Choice about his/her Life
So you can decide whether to make a decision
yourself- or to let God do it for you.

7.

Most people have an image of God. An image of God contains the characteristics a person attributes to God - what they think God is like. Please indicate your own image of God by completing the task below.

Task Below are 34 adjectives. Rate each adjective by indicating how well it describes your own view of God. Circle the position of your choice for each adjective.

ADJECTIVES	Describes God perfectly	Very well	Well	Moderately	Poorly	Very Poorly	Doesn't describe God at all
	1	2	3	4	5	6	7
loving	⊙						⊙
distant							
infinite	⊙						
avenging		⊙					
familiar	⊙						
here	⊙						
all powerful	⊙						
clear	⊙						
warm	⊙						
inaccessible							⊙
gentle	⊙						
near	⊙						
all seeing	⊙						
alive	⊙						
protective	⊙						
punishing		⊙					⊙
helpful	⊙						
merciful	⊙						
kind	⊙						
damning							⊙
personal	⊙						
passive	⊙						
wrathful				⊙			
charitable	⊙						
redeeming	⊙						
comforting	⊙						
forgiving	⊙						
severe							⊙
strong	⊙						
obvious	⊙						
meaningful	⊙						
hard		⊙					
stern				⊙			

What is your age?

19

Sex?

M

F

What church denomination do you belong to? (if any)

CATHOLIC & BRETHREN

Any comments about the questionnaire you wish to make.

Being a Christain is not exactly
being Religious. A Religious person
believes and practices for himself (selfishly),
a True Christain, believes so that others
may believe and be saved.

PLEASE CHECK YOU HAVE ANSWERED ALL QUESTIONS

Thankyou for your time and co-operation.

APPENDIX B Thought Listing Coding Forms (1) & (2) for subject 44

(1)

44 SCENARIO	QUESTIONS CONCERNING CAUSE	COMPLEX CAUSAL THINKING	ATTRIBUTIONS TO GOD'S HAND		ATTRIBUTIONS TO OTHERS		ATTRIBUTIONS TO SELF		ATTRIBUTIONS TO LUCK		ATTRIBUTIONS TO FATE	
			implied	stated	implied	stated	implied	stated	implied	stated	implied	stated
accident	5,0 6,0 7,0		SATAN 7, Outcome	1, E	4,0							
cancer	7, Event		3, E 5,0	7, E				8, E				
results	4,0 5,0 6,0 7,0		4,0 SATAN 5,0 6,0				1, E 7,0					
job	2, E		5,0									
parents	3, E 7, Outcome		3, E									
fiancée	3, E 4, E 8,0		4, E		4, E		4, E					

(2)

44 SCENARIO	ATTRIBUTIONS TO GOD'S HAND		ATTRIBUTIONS TO GOD'S CONTROL		ATTRIBUTIONS TO GOD'S PLAN, PURPOSE		ATTRIBUTIONS TO GOD'S WILL		ASKING GOD FOR HELP		THANKING GOD		FAITH or RELATIONSHIP		GOD'S REASONS	
	confident	tentative	confident	tentative	confident	tentative	confident	tentative	implied	stated	implied	stated	implied	stated	implied	stated
accident	1, E	SATAN 7,0				6,0						1,0				
cancer	5,0	3, E 7, E				4, E							5,0			5,0
results		4,0 SATAN 5,0 6,0														
job		2, E	5,0			2, E										8,0
parents		3, E					7,0									
fiancée		3, E						3, E					4, E			

APPENDIX C

ATTRIBUTIONS TO GOD CORRELATED WITH THE RELIGIOUS SCALES

<u>RELIGIOUS SCALES</u>	(1) TOTAL SPONTANEOUS <u>GOD ATTRIBUTION</u>	(2) TOTAL FORCED CHOICE <u>GOD ATTRIBUTION</u>
Sectarianism	.357 ***	.559 ****
Devotionalism	.455 ****	.633 ****
Saliency: Cognition	<u>.481 ****</u>	.616 ****
Religious Comfort	<u>.476 ****</u>	.681 ****
Control of God by Prayer	.452 ***	.470 ****
Q1 -Frequency of God's Influence	.461 ****	<u>.721 *****</u>
Q2 -God's Direct Intervention	.406 ***	<u>.714 *****</u>
Q3 -God's Influence by Signs	.333 **	.573 ****
Q4 -God's Influence through The Bible	.416 ***	.682 ****
Q5 -God's Influence through predetermination of all events	n.s	.217 **

* p = .05, ** p = .01, *** p = .001, **** p = .0001, ***** p < .00001

APPENDIX D.

(1) & (2) Multivariate Analysis of Variance Summary Table for God Attribution

Source	(1) Spontaneous God Attribution			(2) Forced Choice God Attribution		
	Pillais value	df	F	Pillais value	df	F
Sex		1	0.01		1	.23
Age		1	1.16		1	.16
Valence		2	28.78****		1	69.41****
Domain	0.22	2	9.21***	0.20	2	7.55***
Domain x Valence	0.16	2	6.18**	0.09	2	3.14*

(3) Multivariate Analysis of Variance
Summary Table for Devil Attribution

(3) <u>Forced Choice Devil Attribution</u>			
Source	Pallais value	df	F
Valence		1	56.3****
Domain	0.37	2	17.1****
Domain x Valence	0.30	2	12.6****

p: * = .05, ** = .01, *** = .001, **** = .0001